Planting the Seeds of Local Food Capacity in Northern, Provincial Canada: A Case Study of Community and Market Gardening Initiatives in Cumberland House, Saskatchewan

By Victoria Schembri

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Declaration of originality

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

This thesis explores the impacts of two gardening initiatives – a community garden and a market garden – in a municipality inhabited mostly by Indigenous people in Northern Saskatchewan. This case study employed an asset-based, solution-focused approach in a broader effort to understand community-level, self-determined food initiatives currently being pursued by Indigenous Peoples in Northern Canada. It is widely recognized that food insecurity is disproportionately experienced in Canada's North and among Indigenous populations, which threatens health and well-being; and that food insecurity results from a systemic and persistent lack of agency and decision-making power among people in their food's procurement (Martin & Amos, 2016). Drawing from a food sovereignty framework and encouraged to focus on the community-level by a community food security lens, this study focuses on the Cumberland House market and community gardens to explore the role of self-determination in a food system. This study investigates what community members deem to be opportunities for, impacts of, and barriers to having more autonomy over their food. The primary research question for this study was: Have the community-initiated Market and Community Gardens impacted Cumberland House and its community members' lives and well-being? If yes, how? If no, why not? In answering these questions, this research highlights the ways food insecurity manifests in northern, rural communities; the ways gardening can supplement peoples' diets; the need for food sovereignty work to interrogate market food sources and improve them; and the ways gardens can be sites where a more equitable food system are imagined. This research supports this community's claim that building local food capacity – through and beyond gardening – and combatting the negative ways settler colonialism has transformed Indigenous food systems needs to be prioritized and supported to overcome current and future food security issues.

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CHAPTER ONE

Introducing a Case Study on Building Local Food Capacities via Communal Gardening Initiatives

"Food is life, without it you're dead". Wayne[1], a Cumberland House community member, imparted this wisdom before I had the chance to turn on my voice recorder. We were sitting down for an interview in October 2017. Wayne was born and raised in Cumberland House: a tiny, 600-person village in Northern Saskatchewan at the end of the in-and-out Highway #123. He was involved in the implementation of the Cumberland House Market Garden[2]; and he agreed to participate in my research.

Wayne and I spent the next hour and twenty minutes talking about food, Cumberland House, and the gardens – Market and Community Gardens – that the village had started up. We were sipping coffee at his kitchen table; and while we chatted, we ate homemade cake and "duck poppers"[3]. During the interview, his children were a few feet away at the kitchen counter, preparing bannock and duck soup for dinner and making plans to hunt for a moose afterwards. Outside, a skinned deer that had been hunted that morning was hanging to dry before it was butchered. As an Indigenous[4] person, Wayne's food traditions are inherently cultural: food procurement is a lifestyle, not simply a means of nutrition.

Food was the topic of conversation; we ate as we conversed; and food surrounded us as we were in a community that is known for being a place where Americans come to be led on hunting expeditions. This immersive experience with food was a common theme in my thesis project: my

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[1] Pseudonyms have been assigned for all research participants. See Chapter Three for more details.

[2] For ease of reading, when referring to the Cumberland House Market Garden or Community Garden, capitalization will be used to treat these as proper nouns. Note, in later chapters, "MG" and "CG" are used in place of "Market Garden" and "Community Garden", respectively, to avoid repetition. When speaking about market gardens or community gardens in general, sentence case will be used.

[3] Duck poppers are cream cheese stuffed jalapeño peppers wrapped in duck and bacon - absolutely delicious.

[4] Prompted by Vowel (2016), I will be attentive to my terminology (i.e. using the word "Indigenous"). I will use the term Indigenous to refer to First Nations, Metis, and Inuit living in what is now called Canada; and particularly, I will be cautious about using the term "Canadian" since many Indigenous peoples do not identify as Canadian because they nor their ancestors consented to becoming Canadian. As well, I have chosen to use the word "peoples" when referring to groups of Indigenous Peoples not specifically identified as being from the same community, to acknowledge that there are more than 300 different Indigenous communities on Turtle Island.

interviews with Cumberland House residents were more than just sit-downs. I had the privilege of participating in what I was talking to them about as we explored the impacts of their Community Garden and a Market Garden. I shared, prepared, ate, and harvested food, getting a glimpse of the way people speak of and experience the local food system.

Wayne's statement, "Food is life, without it you're dead," encapsulates the importance of food very simply and bluntly. Food is necessary for survival: calories and nutrients fuel our bodies' everyday, physiological needs and allow us to move, think, and function. But food is more than a collection of nutrients and calories; and not all food is created equal.[5] The way food is produced, processed, distributed, and enjoyed – and who is involved in each of these processes – can have serious implications on that food's value, beyond nutrition. The facilitators and barriers at individual, interpersonal, organizational, community, and policy levels that influence (or dictate) our food choices impact how we live. What we eat and how we eat it affects us physically, mentally, socially, spiritually, economically, and culturally: it has significant impacts on one's subjective experience of feeling well, i.e. well-being (Meiselman, 2016).

Thus, the threats food insecurity poses are dire. Food insecurity is the "the inability to acquire or consume an adequate diet quality or sufficient quantity of food in socially acceptable ways, or the uncertainty that one will be able to do so" (Canada, 2010, para. 1). It is commonly accepted that food insecurity is disproportionately and more severely experienced by Indigenous peoples compared to their non-Indigenous Canadian counterparts (Tarasuk et al., 2016). This insecurity has negative impacts on health and well-being. Moreover, food insecurity is exacerbated by conditions particular to Northern and remote environments (Council of Canadian Academies, 2014; Duhaime, 2002; Food Banks Canada, 2015; Gerlach & Loring, 2013; Martens et al., 2015; Schiff & Brunger, 2013; Tarasuk et al., 2016).

Indigenous peoples shoulder disproportionate rates of food insecurity, which implies that there are particular barriers that are keeping these populations from acquiring food that is

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[5] Clapp & Scrinis describes the trend of reducing food's value to its individual nutrients as "nutritionism", and their research centers on processed and packaged foods (2016). Focusing on nutrients alone negates the significance of the whole food system. As well, considering food as something solely to be consumed and digested dismisses the rituals and processes around preparing, eating, sharing, and enjoying food that can be extremely valuable to individuals, communities, and cultures.

consistently affordable, safe, and nutritious (E. M. Power, 2008). In the vast majority of situations, food security is a condition precedent to good health. Food security, which is lacking across Indigenous and Northern communities, is defined by the Federal government as follows: “[f]ood security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (Government of Canada, 1998, para. 1).

Indigenous peoples have distinct cultural and traditional methods of food preparation, hunting, and foraging; and they participate in a combination of market food, traditional/country food, and locally-grown food systems. Food availability, accessibility, utilization and stability from all these spheres contribute to their food (in)security (Schiff & Brunger, 2013; Walker et al., 2009). The barriers that keep Indigenous folks from acquiring consistently affordable, safe, and nutritious food undoubtedly impact their health. The damage goes beyond health, however. When an Indigenous person loses access to affordable, safe, and nutritious food, they are required to substitute prepared and preserved foods for their own traditional ways. This inherently negatively impacts the survival or growth of their own cultural food traditions.

Food insecurity is seen in Cumberland House, and my interest in this village developed as I learned about their gardens. In this community, there is a Community Garden (est. 2010) and a Market Garden (est. 2014). This is a Northern, predominantly Indigenous community of 671 people. Of the total population, only 30 have a non-aboriginal identity, and 135 identify an Indigenous language as their mother tongue (Statistics Canada, 2016).

For clarification, I was in the Northern Village of Cumberland House (herein referred to as Cumberland House), a municipality and off-reserve Indigenous community. The community was established in 1774 as a fur trading post. It is revered in Canadian (colonial) history as the oldest community in Saskatchewan, established as the first inland fur trading outpost by the Hudson’s Bay Company. It sits on a peninsula adjacent to the Saskatchewan river and Cumberland Lake. This community is distinct from its adjacent Cumberland House Cree Nation 20 reserve, with a population of 350 (Indigenous and Northern Affairs Canada, 2019).

In Cumberland House, I investigated the ways community garden initiatives contribute to food security for its residents. I spent three weeks living in Cumberland House, conducting participant observations and interviews from September into October, 2017.

I am a health sciences student with a background in social science and no formal training in dietetics or nutritional studies. My research was not aiming to be prescriptive, nor did I intend to scrutinize the nutritional components of the food grown in the Gardens. My study instead focused on the subjective experiences of residents of Cumberland House as informed by interviews and participant observations. This was more of a holistic take on food's relation to well-being. A holistic take is essential to the context under which this research took place. This thesis explores the Community and Market Garden initiatives that take place in a Northern, predominantly Indigenous community in Saskatchewan to understand the broader lessons and implications they provide for food studies research and unearth findings that could be helpful to the community as they forge forward with these initiatives. The interplay between wellness, food security and food sovereignty is of special interest to this research.

While Wayne was only one of 26 people that I interviewed while in Cumberland House, his words resonated in the years following. I have spent a significant amount of time transcribing, analyzing, thinking, writing, revising, and writing more to produce this thesis. I got there by driving my Pontiac Vibe[6] across two provinces by way of long winding roads through Boreal forest. I went there to investigate what community-led, food-related initiatives in the North reveal about community-level perspectives of, opportunities for, and barriers to building a secure and self-determined food system.

Research Question, Objectives, and Purpose

The purpose of this research was to investigate the impacts of a self-determined food initiative in a Northern, Indigenous community from a community-level perspective. I was drawn to Northern Saskatchewan because I found it to be an under-researched area in the literature; and to Cumberland House because a town council member who is currently involved in the Market Garden expressed interest in having this research conducted and invited me to the community. From the outset, I considered the Community and Market Gardens to be community-level, self-

[6] Shout out to General Motors on getting 300,000+ kilometers out of a reasonably-priced hatchback. Shout out to my father, George Schembri, for helping me keep it on the road for so long.

determined food initiatives, which fit my research interests; and my research suited the interests of the community I was entering.

The primary research question for this study was: Have the community-initiated Market and Community Gardens impacted Cumberland House and its community members' lives and well-being? If yes, how? If no, why not?

To guide my exploration of this question, I declared the following objectives:

1) Develop a contextual understanding of the role and place of the market and community gardens in Cumberland House society, in relation to community-identified challenges and goals; as well as resources and assets available to address these issues and objectives.

2) Explore the impacts of a market garden and community garden on the wellness of Cumberland House community and its members.

3) Provide useful information for market and community garden members and coordinators for evaluation and/or refinement of the initiatives.

4) Identify other factors (social, political, economic, cultural, and environmental) that may be affecting the gardens' operations, capacities and/or implementation process (i.e. what opportunities have been seized, and what challenges have been faced since starting the gardens that have arisen from situations outside of the direct control of gardeners, non-gardeners, and/or coordinators).

5) Acknowledge and utilize the "ethical space" (Ermine, 2007)[7] between myself (as a researcher/outsider) and the Cumberland House community for dialogue; and conduct my research in a decolonized, culturally-appropriate method with respect to community resiliency, expertise, goals and experiences.[8]

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[8] Note: A sixth objective was included in my research proposal. It read, "This project is funded by FLEdGE (Food: Locally Embedded, Globally Engaged and accordingly, it will explore the roles of (a) territorial integration, (b) scaling, and (c) innovative governance in this case study (i.e FLEdGE's research themes)." While I appreciate the funding and support FLEdGE has provided, discussing these factors in detail proved to be beyond the scope of my findings. The role of territorial integration, scaling, and innovative governance will not be directly discussed in the interest of discussing the themes that emerged from the research, instead.

I sought to hear from individuals with varying levels of involvement in each of these Gardens, inviting them to participate in interviews and provide perspectives on the impetus for implementing these collective gardening initiatives; the provisions and impacts of the Gardens; and any challenges or limitations that the gardens and their caretakers need to be overcome. From these objectives, the following sub-questions were explored:

1) What allowed for/inspired a collective gardening initiative to be implemented?

2) What are the perceived impacts on the community's foodscape, and individual- and community-level wellness as a result of the Market and Community Gardens?

3) What challenges are encountered by the Community and Market Gardens that may limit the extent to which they can facilitate creating a more self-determined food system in Cumberland House?

Note, the original sub-questions laid out in my proposal have been slightly altered for clarity. For example, I altered sub-question 3 from, "What barriers (i.e. internal, external, systemic) keep the market or community garden from meeting their objectives or running at full capacity?" because "full capacity" was hard to define and thus difficult to asses. Instead, I wanted to ask how these gardens are contributing to a more self-determined food system, which is the underlying objective of these gardens. As well, I removed the sub-sub-questions: while they provided me with some guidance going into the research, I found they were too prescriptive and the research and interview style coincided better with more concise and open-ended questions.

Objective Five guided my work from the outset: I used a community-based approach and paid mind to the "ethical space" (Ermine, 2007) that exists between myself as a white settler, researcher, and outsider, and the Cumberland House community. I recognize there are opportunities and limitations for me to understand the experiences of Cumberland House community members and acknowledging both is part of doing my research ethically.

Ermine explains this space between Indigenous and Western "thought worlds": it is a gap, not a void. Both entities are "moulded from a distinct history, knowledge tradition, philosophy, and social and political reality" (2007, p. 194) and between these two worlds, there is a site for dialogue and cross-cultural cooperation. Without overstating my commitment and attention to being ethical and culturally sensitive, this way of seeing research and understanding my role in it impacted the way I collected, analyzed, and presented my data. This process will be elaborated on

in the Methodology section. The remaining objectives will be addressed as I discuss my findings in depth.

Using a Case Study to Explore Opportunities for Combatting Food Insecurity

The causes and disproportionate experience of food insecurity among Indigenous peoples living in Northern Canada elicits a long, complex list of inter-related factors. The aforementioned federally-recognized definition of food security falls short of appreciating and critically analyzing the dynamics of the traditional food and growing/harvesting practices; the responsibilities of environmental stewardship that are tied to food (which includes and extends beyond the scope of sustainability); the import-dependant markets that are essential proponents of the food systems of the North; and the political and economic structures that define and control these food systems (Duhaime, 2002; Power, 2008). That is, food (in)security is about more than presence/absence of food (read: calories or nutrients). Understanding the consequences of food (in)security require more than looking at what people eat; it requires interrogating the systems that impact the foodscape in which people live, work, and eat.

The diversity within and across Indigenous communities is extremely vast, so seeking a one-size-fits-all solution that provides food-in-general is misguided. Arguably, it could even be destructive if it enforces a pan-Indigenous narrative that describes each culture and community within this “identity” as uniform, fixed and static (Grey & Patel, 2015). Be it a Métis, First Nation, or Inuit community, dynamic forces influence the food practices, cultural values, social networks, public infrastructure, geographies, economic capabilities, demographics, and political structures of these populations differently; and so, these communities experience and respond to food insecurity differently.

Studying community-level and -specific responses to food insecurity can shed light on the general themes of Indigenous food security consistent throughout the North, while realizing particular structures within diverse contexts that facilitate or impede opportunities for change (Fieldhouse & Thompson, 2012; Gaudin et al., 2015; Gombay, 2010; Karlah Rae Rudolph & McLachlan, 2013; S. Thompson et al., 2011, 2012). As well, recognizing and supporting self-determined food-related actions occurring within communities – rather than proposing/imposing solution models across communities – offers constructive and practical ways for understanding

how its food system works, where opportunities for improvement lie, and challenges that must be overcome, while promoting food justice (Kamal et al., 2015; Levi, 2007; Schiff & Brunger, 2013; S. Thompson et al., 2011, 2012).

A very necessary reframing of this "Northern food issue" follows: that is, valuing these actions inherently dismisses a neoracist discourse that portrays Indigenous peoples as complacent and/or helpless to their food insecurity plight (Hiebert & Power, 2016).[9]

And so, identifying opportunities for enhancing availability of and access to adequate and appropriate food in a community must occur simultaneously with contextualization, and special attention must be paid to the specific issues, concerns, assets, and capabilities pertinent to that community. Bringing lived realities and experiences of food (in)security in these communities to the forefront can prioritize, inform and motivate changes to the components of current food systems that perpetuate food insecurity. Supporting community action and refining projects that have already received community investment (in terms of financial, social, economic, and/or political resources) can be more efficient, effective, and empowering (Kuhnlein, Erasmus, Spigelski, & Burlingame, 2013; Reading & Reading, 2012).

Responding to the Gap in Research on Northern Saskatchewan Indigenous Food Systems

This research focuses on Cumberland House village, Saskatchewan and their community-led food initiative (i.e. the community and market gardens) in order to understand lived experiences of, opportunities for, and barriers to building a self-determined food system in this particular Northern, Indigenous, semi-remote context. I recognize, too, that provincial Northern Canada – especially Saskatchewan – is an area that warrants more research. While provincial and territorial Northern landscapes share similar characteristics, and issues of rural- and remoteness consistently present barriers to food security for Indigenous peoples living in both these contexts, there are larger knowledge gaps when it comes to Indigenous food security in most of the provincial North (Wilson & Poelzer, 2005).

[9] Heibert and Power specifically look at the print media surrounding food insecurity crisis in Nunavut and describe the neo-racist discourse that emerges.

In general, Coates and Morrison have referred to the provincial North as the “Forgotten North” (1992). More current literature has outlined how provincial Norths still suffer from political marginalization (at a provincial and federal level); internal colonial relationships with their Southern counterparts especially when it comes to resource extraction and (lack of) economic development; and that they could benefit from stronger East-West networks and political relations (rather than North-South) (Wilson & Poelzer, 2005; Zhang & Swanson, 2014).

Arctic Councils have been formed, recognizing a need to create networks between Arctic nations (including Alaska, parts of Canada, Faroe Islands, Finland, Greenland, Iceland, Norway, Russia, and Sweden) to discuss Northern concerns and share relevant information that is usually dispersed and hard to find (i.e. see Arcticstat, a database that consolidates statistical data concerning socioeconomic conditions of peoples in the aforementioned Arctic Nations; http://www.arcticstat.org/); no such inter-jurisdictional association exists for the provincial Norths. As well, in the Territories, processes of devolution and land claims have provided territorial governments and Indigenous self-governments with more agency since the 1980’s than provincial First Nations (Coates et al., 2014).

Provincial Northern Indigenous communities seem to “occupy an ambiguous position in the Canadian psyche”, which is reflected in the limited, dispersed, and hard to find academic literature (Wilson & Poelzer, 2005). Furthermore, Cumberland House occupies an even more obscure place as a predominately Indigenous municipality in Northern Saskatchewan. Off-reserve Indigenous peoples share many issues with First Nation Bands on Reserves but lack the self-government and Nation-to-Nation relationship with the Federal Government.

Information on Northern Saskatchewan, in particular, concerning food security is quite limited, inconsistent and out of date; although, a few reports regarding Northern health and food security do exist (Saskatchewan Food Costing Task Group, 2015). Among Indigenous communities, chronic disease, nutrition, and lifestyle are the most commonly identified health issues; poor nutrition is associated with high food costs; better nutrition is associated with traditional food practices/consumption; and diets have been impacted by colonization and cultural disruption, and are highly dependent on grocery store chains (Sinclair et al., 2006). A food costing report acknowledges First Nations and Métis people, and northern Saskatchewan residents are more vulnerable to experiencing food insecurity, and families of low income levels are especially

vulnerable (Saskatchewan Food Costing Task Group, 2015). Up to 12.5% of households in Saskatchewan experience food insecurity. Food prices in the provincial north are significantly higher and are increasing at a faster rate than their southern counterparts (Saskatchewan Food Costing Task Group, 2011; 2015).

As well, there is a stated interest in community-level research and interventions: "dialogue from the heart of Saskatchewan's Indigenous communities will help shape the health research agenda… and guide researchers… [towards] research that is founded upon the expressed needs and desires of the communities". There is a desire of Indigenous peoples to be proactive and take responsibility for their health (Sinclair et al., 2006, p. 10).

Outline of the Thesis

In this Chapter, I introduced the study, providing an overview of the research: its purpose and questions, its background information, and its scope. Following this, Chapter Two consists of a literature review and an introduction to theoretical frameworks used in analysis. Chapter Three discusses the methods I used to conduct the research, my positionality, and more specifics on the case setting. Chapter Four and Five describe my findings. These findings are arranged in three sections: the reasons why the gardens exist, the primary outputs and benefits that come from them, and the tensions and limitations that are faced in their operation. Chapter Six includes a discussion of these findings in relation to the literature from Chapter Two. In this section, I shed some light on my own experience conducting the research. I also discuss the experience of food insecurity in Cumberland House and why it is tied so closely to financial security; the ways gardening is supplementing diets, but are not a complete solution; and lastly, that building autonomy in Indigenous food systems must include a conversation about building equitable and sustainable agricultural and market sources. I conclude this thesis with Chapter Seven, which shares some final reflections on the research.

CHAPTER TWO

Indigenous Food Systems in Northern Canada: Food (In)Security, Food Sovereignty, and Using Gardens to Explore Them

This chapter reviews the relevant literature on the state of Indigenous food systems and sets the table for my research. I examine how the state of food (in)security in Northern, Indigenous communities has been framed in the scholarly dialogue, including peer-reviewed and grey literatures (e.g., government and NGO reports, websites, and unpublished theses). My review suggests that food security of Northern Indigenous communities has been addressed primarily from a deficit perspective. This includes, but is not limited to, examining the accessibility and availability of market, traditional, and grown foods; and the impacts that colonialism, climate change, dispossession of resources, and changing social, political and economic landscapes have had on these food sources.

In exploring how food insecurity impacts Canada's Indigenous population, the literature reveals how food is culturally and spiritually significant to Indigenous peoples and communities, which prompts a more robust analytical lens than "food security". This is where a discussion of community food security will be introduced as a basis upon which food insecurity could be surveyed – that is, the community versus the household. Furthermore, in uncovering the themes of dispossession, colonialism, and need for increased autonomy that underly the food insecurity, food sovereignty will also be discussed. Given the environmental-dependency and thus environmental-specificity of Indigenous food systems, the literature further reveals the need for a more descriptive and contextual approach to research that addresses specific communities' needs, experiences and actions.

Then, I discuss the existing literature on gardens, primarily in the context of if/how gardens can strengthen local food procurement in Indigenous communities in Canada. I discuss community and market gardens and their (at times, contentious) role in mitigating food insecurity and cultivating food sovereignty. While the literature (and my research) reveal that gardens are not a "silver bullet" solution to combat the overwhelming experience of food insecurity in Indigenous communities and across First Nations, Inuit, and Métis populations; they do provide a compelling platform to explore the state of food (in)security and food sovereignty theory and practicalities.

The prevalence of food insecurity in Northern and Indigenous populations

As discussed in Chapter 1, food insecurity is disproportionately and more severely experienced by Indigenous peoples compared to their non-Indigenous Canadian counterparts. Most measurements show that Indigenous peoples are experiencing two to three times more insecurity than non-Indigenous populations. For example, Willows et al. (2009) found that in Canada, 33% of Indigenous off-reserve households were food insecure, compared to 9% of non-Indigenous households. Furthermore, 14% of Indigenous households are severely[10] food insecure compared to 3% of the non-Indigenous food insecure population.

Likewise, Tarasuk et al. (2016) found that 12.0% of Canadian households that responded to the Canadian Community Health Survey (CCHS) experienced some level of food insecurity during 2014, and the rate of food insecurity among off-reserve Indigenous households was 25.7%. Of note, the CCHS data excludes persons living on reserves, institutionalized populations, children aged 12-17 living in foster care, and people living in Nunavik. Since many Indigenous people are excluded from this data collection, the prevalence of food insecurity among this population may be underestimated (Government of Canada, 2015). A study conducted by the First Nations Information Governance Center – which surveyed on- and off-reserve First Nations communities across Canada - found 32.0% of First Nations adults reported struggling to meet their basic food needs (First Nations Information Governance Center, 2018).

Food insecurity among Indigenous populations is exacerbated by geography. They are often located in the rural, remote, Northern parts of Canada (Council of Canadian Academies, 2014; Duhaime, 2002; Food Banks Canada, 2015; Gerlach & Loring, 2013; Timler et al., 2019). For example, household food insecurity in Nunavut (where 86% of the population is Indigenous; Statistics Canada, 2016) was measured at 49.4% in 2017/2018 (Statistics Canada, 2020). This is close to four times the national average cited earlier.

Work by Thompson and colleagues exemplifies the stark contrast of food insecurity rates in First Nations in Northern Manitoba compared to the provincial average of 7.9% (Government of Canada, 2013). Among the First Nation communities in Northern Manitoba surveyed, there

[10] Severe food insecurity is when there is "reduced food intake and disrupted eating patterns" owing to a household's limited financial resources for acquiring food (Government of Canada, 2015).

were household food insecurity rates of 47% (sample size = 49) all the way up to 100% (sample size = 46); and of the entire sample of 534 households, 75% were food insecure (Thompson, Kamal, Alam, & Wiebe, 2012).[11] These statistics assert that Northern Indigenous households are a population that is overwhelmingly food insecure (Levi, 2007).

Indigenous peoples shoulder disproportionate rates of food insecurity. This implies there are particular barriers that are keeping these populations from acquiring food that is consistently affordable, safe, and nutritious in order to obtain good health. While the food security and food insecurity definitions do not explicitly mention the importance of cultural foods, other academics have identified there are likewise barriers that keep Indigenous people from accessing culturally familiar or appropriate foods (Power, 2005).

From a rights-based analysis, the right to food is not being realized by many Canadians; and particularly, by many Indigenous peoples (De Schutter, 2012). The presence of hunger and food insecurity are indicative of "the inadequacy of social protection schemes to meet the basic needs of households." The UN's Special Rapporteur on the right to food, Olivier De Schutter, described Canada's "protection of economic and social rights, including the right to food, has been less than exemplary" (2012, p. 5).

The right to food – i.e. " the right to adequate food is realized when every man, woman and child, alone or in community with others, has physical and economic access at all times to adequate food or means for its procurement" (United Nations Committee on Economic, Social and Cultural Rights, 1999, p.3) – is a fundamental human right, included in the Universal Declaration of Human Rights (1948) and the International Covenant on Economic, Social and Cultural Rights (1976) to which Canada is a signatory. Thus, while the moral obligation for every man, woman and child to have adequate food is obvious, Canada has a legal obligation based on our international agreements as well. Of note, the first-ever Food Policy for Canada was introduced in 2019 (it bears the slogan "Everyone at the table!"); and the first Food Policy Council was established and met in 2021 (Agriculture and Agri-Food Canada, 2021). This Council, announced by the Minister of

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[11] Note, I would like to provide this type of information for Saskatchewan specifically, since that is the province this research takes place in. In Saskatchewan, the food insecurity rate is measured at 13.9% (Tarasuk & Mitchell, 2020) but a comparison of Southern to Northern communities; or comparing Indigenous to non-Indigenous populations is not available.

Agriculture and Agri-food, is to work towards the vision that "all people in Canada are able to access a sufficient amount of safe, nutritious, and culturally diverse food, and that Canada's food system is resilient and innovative, sustains our environment and supports our economy" (Agriculture and Agri-Food Canada, 2021, para. 13)

From a health perspective, food insecurity is especially problematic because it is tied to a range of physical and mental health issues. In addition to being a social determinant of health, people who are food insecure are more susceptible to malnutrition, infection, anemia, cardiovascular disease, diabetes, stress, depression, and learning disabilities (Council of Canadian Academies, 2014). Beyond higher levels of "Moderate" and "Severe" Food Insecurity as qualified by the Canadian Community Health Survey questionnaire (Skinner et al., 2013; Tarasuk et al., 2016; Thompson et al., 2012), the scale and severity of food insecurity amongst Northern Indigenous peoples is demonstrated and recognized through the following factors: a higher burden and increasing prevalence of diet-related, chronic disease (Damman et al., 2008; Duhaime, 2002; Haman et al., 2010; Health Canada, 2008; Schiff et al., 2020); a decrease in consumption of nutritionally-dense traditional/country foods and an increase in consumption of energy-dense, nutrient-deficient market foods, referred to as a nutrition transition (Kuhnlein et al., 2004, 2008; Sharma et al., 2008); high food prices (Skinner et al., 2016; Veeraraghavan et al., 2016); community voicings of dissatisfaction (Fiddler, 2012; Skinner et al., 2013; Socha et al., 2012); and social/community mobilization to fix the existing state of affairs (Council of Canadian Academies, 2014). The presence of each and all of these factors allude to deficiencies in access to and availability of food that is nutritionally and/or culturally and/or economically adequate for Northern Indigenous communities.

Beyond Household Food Security

The definition of food insecurity is strongly tied to the financial resources of a household. Studies have shown that food insecurity is tied to poverty and financial constraints. Sociodemographic risk factors of financial and (thereby) food insecurity – for example, having three or more children, lone parent households, not having home ownership, the highest level of education attained being secondary school or less, and living on a low income – are more prevalent among Indigenous households (Willows, Veugelers, Raine, & Kuhle, 2009). However, the

prevalence of food insecurity in Indigenous populations extends beyond household situations and lifestyle choices.

The predisposition to food insecurity that Indigenous peoples and Northern populations face is owed to the sociopolitical environment and how it shapes food access, availability, and adequacy through the marketplace and from the land via hunting, foraging, and growing. Beyond being enabled by poverty, common themes in the literature portray the experience of food insecurity of Indigenous populations in the North differently than those of urban food insecurity. These include a complex manifestation of four key factors:

1. **A distanced, industrial, oligarchical, and expensive market food system** occurring concurrently with a nutrition transition (i.e. a decrease in wild/country food consumption, and movement towards a Westernized diet characterized by an increase processed food consumption) *and* disproportionate rates of poverty (Chin-Yee & Chin-Yee, 2015; Damman et al., 2008; Haman et al., 2010; Kuhnlein et al., 2004; K. R. Rudolph, 2012; Skinner et al., 2013; Stroink & Nelson, 2009; S. Thompson et al., 2011, 2012; Veeraraghavan et al., 2016);

2. **Colonial trauma** caused by the residential school system, separating families through foster care, and relocation of communities to reserves, as well as the lasting government policies that have purposefully interrupted intergenerational knowledge transfer of traditional skills for food acquisition along with other land-based and cultural practices (Grey & Patel, 2015; Kamal et al., 2015; Rudolph & McLachlan, 2013; Thompson et al., 2012);

3. **Changing demographics and mixed-economies** where the younger population are increasing and showing stronger interest to engage in market relations, and have less interest or less opportunities for practicing traditional skills (e.g., hunting, fishing, gathering) or pursuing traditional livelihoods (Damman et al., 2008; Gaudin et al., 2015; Gombay, 2010; Levi, 2007; L. Ray, 2008);

4. **Various direct and indirect obstructions** to Indigenous peoples utilizing the land and its resources for subsistence. This includes land dispossession via the reserve system and restrictive access to traditional lands through permits and hunting regulations (despite Treaty rights that protect traditional commercial and subsistence activities). All of this limits opportunities to attain (safe) country foods, which is even further compromised by climate change and environment-altering extraction activities (Bordeleau et al., 2016; Damman et al., 2008; Duhaime, 2002; LeBlanc, 2014; Wesche & Chan, 2010) (similar summaries of such factors come from Council of Canadian Academies, 2014; Gerlach & Loring, 2013; Parlee & Furgal, 2012; Power, 2007).

This list is not exhaustive, but it outlines the major systemic factors that underlie food insecurity and that have contributed to an "erosion of Indigenous people's access to their

foodways" (Burnett, Skinner, LeBlanc, Chambers, & Hay, 2017, p. 334). The causes of food insecurity go far beyond individual or household earnings; and its manifestations are cultivated in dynamic and unique historical, social, economic, political and cultural arenas, both internal and external to Indigenous communities in Northern Canada.

Broadening the Scope of Food Security through Community Food Security

There is consensus across the literature that Indigenous food insecurity in the North is a pressing issue. However, the definition and descriptions of food security and food insecurity fall short of describing food system solutions for Indigenous populations, for which traditional food and harvesting practices (and restrictions), locally grown food sources, histories of colonialism, impacts of resource extraction, import-dependant market food systems, and responsibilities of environmental stewardship must be considered (Duhaime, 2002; Power, 2008).[12] Further, it does not explicitly acknowledge that cultural influences shape food preferences and notions of acceptability.

The dimensions of food security set out by the Food and Agriculture Organization the United Nations are restricted to food availability (i.e. the "supply side" which is "determined by food production, stock levels, and net trade"); accessibility ("incomes, expenditure, markets and prices" of the food supply); utilization ("the way the body makes the most of the various nutrients in the food", determined by "feeding practice es, food preparation, diversity of the diet and intra-household distribution of food") and stability (which can be impacted by "weather conditions, political instability, or economic factors" and can affect the other three dimensions; FAO, 2008, p. 1). Considering this definition and these pillars, there is little room to consider food beyond being a commodity and a supplement of nutrients for bodily functions; which signifies a need for a more robust perspective to understand the situation than the "food security" lens offers.

Of note, the Ontario Public Health Authority urged the Ontario Government's Food Security Strategy to expand its definition of food security from the FAO definition to: "Food

[12] Canada's Action Plan for Food Security does indeed list "Priority 5: Traditional food acquisition methods of Aboriginal and coastal communities: acknowledge the important role that hunting, fishing, gathering, bartering and trading play in the food security of many communities in Canada and abroad" (1998), but discusses it alongside environmental contamination, resource management, and supplementation with commercial foods. This Plan and Priority fails to address the cultural aspects of traditional/country food and the role environmental stewardship plays.

security is achieved when all people have physical, social and economic access at all times, to sufficient, safe, nutritious, and culturally appropriate food that meets their dietary needs for a healthy life and that do not interfere with the enjoyment of other human rights." (Ontario Public Health Authority, 2017, para 21). This was an important recommendation because if an agency is working towards food security, the way they define it can determine the goals and affect the outcomes of the policies they put in place (Ontario Public Health Authority, 2017).

Community food security (CFS) is an extension of food security introduced by the US-based Community Food Security Coalition in 1994; and has since been defined by Hamm and Bellows as "a situation in which all community residents obtain safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice" (2003, p. 37).[13] Whereas food security focuses on an individual or household's access to food from the dominant food system based on physical and economic means, CFS "extend[s] beyond such basic questions as adequacy of personal resources into an examination of the food system itself" (Gottlieb & Fisher, 1996). As such, it can be understood as both an analytical tool and an end goal.

Note, the "community self-reliance" aspect of this definition should not be conflated with "self-sufficiency" (Hamm & Bellows, 2003, p. 38);[14] but, central tenets of CFS are centered around strengthening local autonomy and sustainable development, which brings concepts such as social justice, empowerment, and democracy into the conversation around food and how it is procured (Bellows & Hamm, 2001; Spiegelaar, 2011).

This concept also explicitly mentions the cultural aspect of food security – the "culturally acceptable" component – which for Inuit, Métis, and First Nations peoples is especially crucial, because it demands recognition of cultural identities (Power, 2007). The intimate relationships Indigenous communities have with the land also demonstrate how these distinctions are place-based: "Indigenous food systems are as diverse as the myriad of Canadian ecosystems" (Shuklar

[13] The Dieticians of Canada have since modified it: "[CFS] exists when all community residents obtain a safe, *personally* acceptable, nutritious diet through a sustainable food system that maximizes *healthy choices,* community self-reliance*, and equal access for everyone*" (emphasis added; Dieticians of Canada, 2007).

[14] To avoid confusion, I would prefer to consider *stability* or *agency* as indicative of and an end goal for CFS efforts (e.g. creating reliable, predictable, and stable local and/or imported food sources and distribution lines and enhancing community control over food systems is ideal), rather than "community self-reliance".

et al., 2019, p. 75). Further to this point, Egede describes: "It is sometimes said 'That you are what you eat.' If this is true then those who eat Inuit foods must be Inuit. Our foods do more than nourish our bodies. They feed our souls. When I eat Inuit foods, I know who I am. I feel the connection to our ocean and to our land, to our people, to our way of life" (quoted by Power, 2007, p. 7).

Beyond just the type of food consumed, country foods are also integrated into social and cultural systems through sharing within and between households (Thompson, 2005). As well, recognizing that access to culturally acceptable foods have been compromised since the introduction of European settlers in the 1800's acknowledges the impacts of colonialism that underlie the lives, health and well-being of these communities through the food system (Reading & Wien, 2009). A more holistic understanding of food's place in society – rather than just its nutritional content and health benefits – is more closely aligned with Indigenous perspectives of health and well-being, which are greatly influenced by a worldview of interconnection and respect between individuals, communities, and the land (Gaudin et al., 2015; Martens et al., 2015; Ray, 2008).

Considering the food system at the community level, rather than food security at the individual level, also prompts consideration of regional or local needs, which calls attention to the political geographies and land. Positioning these communities (and their cultures, identities, and histories) within their resource-rich, remote Northern territories adds a set of legal and logistical considerations for food security: questions of land ownership[15] and resource development (and the potential environmental degradation or contamination that can result) that affect availability and access to traditional food sources; the distance food must travel to reach marketplaces that currently adds cost and spoils quality; and issues with infrastructure (ex. the existence of year-round or seasonal road access, especially considering the impacts climate change is having on ice roads) that can impact access, availability and distribution of traditional and market foods (Bordeleau et al., 2016; Kamal et al., 2015; LeBlanc, 2014; Skinner et al., 2016; S. Thompson et al., 2012). Such an expansive and comprehensive framework for understanding all these factors

[15] Referring to treaties as well as wildlife harvesting, production, and distribution rules and regulations.

around food and food-related activities of Northern Indigenous communities is more closely aligned with community food security than with household food security.

Some authors have been developing community-level understandings of food security[16] in the provincial North[17] that explore how these factors play out in specific community settings; and they encourage more studies to be done in this style. For example, work by Gaudin, Receveur, Girard, and Poitvin (2015); Gombay (2010); Kamal, Linklater, Thompson, Dipple, and Ithinto Mechisowin Committee (2015); Levi (2007); Rudolph and McLachlan (2013); Schiff and Brunger (2013); Skinner, Hanning, Desjardins, and Tsuji (2013); Skinner, Hanning, and Tsuji (2013); Thompson, Gulkrukh, Ballard, Beardy, Islam, Lozeznik, and Wong (2011); and Thompson, Kamal, and Wiebe (2012) have used in-depth community consultations and most have used participatory research methods to provide contextualized understandings of Indigenous food systems, and opportunities and barriers for improving them. This work is predominately done in communities in Ontario, Manitoba, Labrador, and Nunavik (i.e. Northern Quebec). They also discuss bottom-up, community approaches: sharing networks, community gardens, the Nelson House Country Foods Program, commodification of country foods, community-level food assessments, community freezers, community gardens, and hunter support programs are some examples; although, many community initiatives remain undocumented in conventional journals (Hiebert & Power, 2016; Levi, 2007).

This community-level of understanding is important. The fact that communities differ indicates that there is no universal solution to food insecurity. Instead, solutions need to correspond to community contexts, and multilevel approaches within each community are required (Council of Canadian Academies, 2014). For example, education programs that increase food literacy[18] are

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[16] I use the term "community-level understandings of food security" because some of the authors investigate "food security" and utilize the definition proposed at the World Food Summit at the community level, rather than inciting the Hamm and Bellows-defined CFS.

[17] And recent examples from the Far North (i.e. territorial North) include Kenny, Wesche, Fillion, MacLean, and Chan's scan of initiatives at the community- (as well as territorial- and national-) level in the Inuvialuit Settlement Region, NWT (2018); and Spring, Carter, and Blay-Palmer in Kakisa, NWT (2018)

[18] Food literacy "describes the idea of proficiency in food related skills and knowledge", which includes skills in food growing, preparation and cooking; food handing and safety; and the ability to obtain and understand information about food and its nutritional content in order to make informed (i.e. typically health-related) decisions about the food one consumes (Truman et al., 2017)

valuable, but they cannot compensate for poor access to food when food is expensive, of low quality, or if a community does not even have a grocery store (which is the case in War Lake First Nation, Manitoba, for example; Fieldhouse & Thompson, 2012). In the same vein, increasing access to food will not solve the problem if the knowledge and skills for preparing that food are not known or efforts are not put towards increasing that food literacy; both have to happen concurrently to be effective.

For example, Spring, Carter, and Blay-Palmer (2018) describe how gardens in Kakisa, NWT – which were introduced through a collaboration between community members and researchers from outside the community – "ultimately failed" because they were "built under the assumption that community members had the skills needed to care for and utilize it" (p. 130). In this case, growing food does not have a strong place in Dene culture. The authors suggest building partnerships with the Northern Farm Training Institute nearby in Hay River for support and training if these initiatives were to be revisited. The experience and impact of the factors that create opportunities and barriers for community food security are not uniform across northern communities; and as such, the literature calls for exploration of environmental, cultural, economic, logistical, political, spiritual and social aspects of food and food-related activities of Northern Indigenous communities. As well, within and across the North the nutritional, cultural, political, and economic values concerning food are prioritized differently. The only place to understand the convergence of market and land-based practices and realize the individual and community values that determine food-related behaviours, is by consulting or working with the communities themselves.

Introducing Food Sovereignty

Each community in the North will have a different set of factors that will create its unique food system. But surveying these communities and comparing and contrasting the opportunities and barriers they face to establishing a secure food system, a general theme emerges. That is: a lack of agency and control is a consistent underlying cause of food insecurity and erosion of Indigenous food systems (Burnett et al., 2015; Chin-Yee & Chin-Yee, 2015; Galloway, 2014; Gerlach & Loring, 2013; Grey & Patel, 2015; Kamal et al., 2015; Lavoie, 2016; Martens et al., 2015; Vowel, 2016).

Recognizing the role disenfranchisement and colonization have played in the history and lives of Indigenous communities elucidates, once again: food insecurity is not merely individual, familial, or household financial issue. The scope of food security falls short of understanding and can even propagate imbalanced power relations and historical injustice that produce food insecurity if it "avoid[s] discussing the social control of the food system" (Patel, 2009, p. 665; Damman et al., 2008; Kamal et al., 2015; Martens et al., 2015; Karlah Rae Rudolph & McLachlan, 2013). The undercurrent of dispossession that underlies the current food crisis, and underlies settler and Indigenous relationships in general, must be interrogated; and this brings up notions of sovereignty (Kepkiewicz & Dale, 2019).

Food sovereignty is proposed as both a means and a goal. It advocates for "the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems" (Nyéléni, 2007, para. 3). This concept was introduced by La Via Campesina, an international peasant's movement (comprised of small- and medium-scale food producers, agricultural workers, rural women, and Indigenous communities from across the globe), at the 1996 World Food Summit. This came at a time when hunger, malnutrition and rural poverty were defined as urgent issues needing to be targeted by international policy; and yet, the (so called) Poverty Reduction Strategies of the World Bank implemented via structural adjustment programs were "'depesanting' rural areas" (Patel, 2009, p. 665). These programs were undermining rural livelihoods in developing countries because of the resulting increase in imports of "'cheap' staple foods" and push to produce commodity crops en masse and cheaply for global markets (Windfuhr & Jonsén, 2005, p. 6).

Through food sovereignty, La Via Campesina urges power over food production to shift away from corporations and global market institutions that function under a neoliberal logic, and towards the producers and consumers of food that value the human dimensions and ecological impacts of food production (La Via Campesina, 2017, p. 5). This shift will come with a "popular agrarian reform" and is in opposition to the land grabbing and land concentration that has replaced peasants, small- and medium-scale farmers and indigenous peoples with an intensive, input-dependant (i.e. dependant on fossil fuels), monoculture-dominant, productionist global agri-food system that "generate[s] poverty, migration and global warming" (La Via Campesina, 2017, p. 8).

This movement is highly motivated to protect rural lives and livelihoods and has a strong environmental focus, which is integrated with the agroecological[19] movement.

More Specifically, Indigenous Food Sovereignty

This stance of democratization and decolonization of the food system through increasing self-determination for producers and consumers has been embraced by Indigenous communities across Turtle Island and resonates in the literature (Damman et al., 2008; Desmarais & Wittman, 2014; Kamal et al., 2015; Martens et al., 2015; Nishnawbe Aski Nation, 2016; Socha et al., 2012; Thompson et al., 2011, 2012). Namely, this is because Indigenous communities were self-sufficient and had adequate access to food from the land before the settlers arrived and introduced colonial and capitalist systems that exploited human and natural resources to redistribute them to benefit imperial interests (H. A. Thompson et al., 2018). The B.C. Food Systems Network's Working Group on Indigenous Food Sovereignty describes food sovereignty as an approach "that provides a framework to explore, analyze and describe key principles of protecting, conserving and restoring Indigenous food systems as it relates to [their] unique cultures and circumstances" (Morrison, 2008, p. 12). They identify the following as principles of Indigenous food sovereignty: sacredness, self-determination, participation, and policy. Of note, on the ground, "many communities that do not explicitly use the language of food sovereignty nonetheless engage in strategies that fall in line with the food sovereignty framework" (Daigle, 2019, p. 304).

In the context of Indigenous food sovereignty, there is a strong focus on moving away from "Southern [Canada]-generated responses to this [food] crisis […] [which] are disengaged from concerns related to environmental and food justice" (Rudolph & McLachlan, 2013, p. 1079). As well, there is concern about how land is used beyond growing and harvesting food; namely, contamination, pollution, resource exploitation, privatization of land, and urban encroachment (Muller, 2018). This is very similar to how the global food sovereignty movement is opposed to

[19] Agroecology, defined by the International Panel of the Experts on Sustainable Food Systems, is "a universal logic for redesigning agricultural systems in ways that maximize biodiversity and stimulate interactions between different plants and species, as part of holistic strategies to build long-term fertility, healthy agro-ecosystems and secure livelihoods. Put simply, it is the opposite of monocultures and their reliance on chemical inputs. It is therefore a broad landing space that can be reached via a variety of pathways and entry points, progressively or in more rapid shifts, as farmers free themselves from the structures of industrial agriculture and refocus their farming systems around a new set of principles" (2016, p. 7)

exploitative neoliberal market-generated and trade-based agriculture, natural resource, and general land-use policies (Windfuhr & Jonsén, 2005).

There is some divergence between Food Sovereignty and Indigenous Food Sovereignty. Indigenous food sovereignty tends to be less agriculture-focused than the global movement, and more focused on decolonization and land-based practices of hunting, fishing, and gathering (Desmarais & Wittman, 2014). Indigenous food sovereignty goes hand-in-hand with Indigenous land sovereignty; as Robin writes, "it is nearly impossible for peoples of the land to obtain food from the land if that land is not protected" (p. 90, 2019). The nutritional and cultural malnourishment that is disproportionately prevalent among Indigenous populations is a result of "colonial land theft… industry, pollution, over-extraction, and invasive plants", reflecting the intrinsic link between land and food sovereignty (Timler & Sandy, p. 2, 2020).

Access to food begets a conversation about access to land against the colonial backdrop of land-grabbing, relocation to reservations, residential schools, and broken treaties (Robin, 2019); ongoing resource extraction, environmental pollution, and climate change (Muller, 2018); as well tensions between Eurocentric notions of land ownership with Indigenous perspectives of land stewardship (Kepkiewicz & Dale, 2019).

Under this framework, it is recognized that food insecurity creates hunger not just for food, but also for freedom from "government policies that infringe on indigenous peoples' livelihoods and territories, undermining their economic system, values, and solidarity safety networks" (Damman et al., 2008, p. 135). Food sovereignty is imbued with resurgence; with inciting and reclaiming points of authority for Indigenous and non-human kin (ex. land, animals, and plants) through food practices (Daigle, 2019).

Settler societies repeated stripping of community agency and control over land and food systems from Indigenous peoples is a timeless issue that has produced and exacerbates food insecurity (Chin-Yee & Chin-Yee, 2015; Grey & Patel, 2015; Kamal et al., 2015; Martens et al., 2015). For example, the forced relocation of Inuit communities in the 1950's in Nunavik from traditional hunting and harvesting lands to unfamiliar, less hospitable lands in present-day Nunavut (Vowel, 2016).

Canadian federal and provincial governments continue to ignore and undermine Indigenous people's rights to and uses for land, another example being the federal government of

Canada – without consent of affected First Nations communities – proposing plans for a hydro-dam at Site C in British Columbia that will flood agricultural land and "cause significant harm to fishing, hunting and other traditional uses of the land" for Treaty 8 First Nations in the Peace River valley (Kane, 2017; Lavoie, 2016). More recently, in September 2020 when Mi'kmaq fishermen from Sipekne'katik First Nation launched a self-regulated lobster fishery in line with their treaty rights to fish for a "moderate livelihood", violent attacks by non-Indigenous fishermen and inaction from police resulted in the lobster pound being burned down, fishing equipment destroyed, and caught lobster being poisoned with PVC cement (Slaughter, 2020).

Even market food sources are undermined by a paternalistic governing system, as exemplified by the Nutrition North Canada program that has not remedied the problem of extremely high Northern food prices, and a lack of transparency and disclosure from the Northwest Company on how the subsidy reaches northern consumers inhibits consumers' ability to understand how the program actually functions and to change it (Burnett et al., 2015; Galloway, 2014).

Food sovereignty requires an interrogation of food politics. It opposes imposed capitalist, colonialist, and industrial natural resource and food systems that prioritize capital and international interests over human and environmental needs (Clapp, 2014; Rudolph, 2012). For food insecurity to be combatted effectively, sustainably, and justly, self-determination and authority over food and land by Indigenous peoples is required. The process thorough which this would be obtained requires on the ground, community expertise and bottom-up approaches in which Indigenous communities "respond to [their] own needs for safe, healthy, culturally adapted Indigenous foods" which includes "the ability to make decisions over the amount and quality of food [they] hunt, fish, gather, grow and eat …. [and] freedom from dependence on grocery stores or corporately controlled food production and distribution market economies" (Morrison, 2008, p. 12).

Of course, amid this discussion, these "self-determined" or "sovereign" food actions are "multivalent" (Daigle, 2017, p. 2). Attention must be paid to these "peoples" who define "their own" food systems in contention with the international and capitalist agricultural food system. Across and within Inuit, Métis, and First Nations communities, we must "prob[e] lingering issues of solidarity in food politics across Indigenous-Settler divides" (Grey & Patel, 2015, p. 433), and avoid adopting a framework that "represent[s] culture as a fixed, reified entity, with cultural groups

existing in a binary vis-à-vis mainstream culture" (Kirkman, *et al.* quoted in Lodge, 2009, p. 46). The "self" in self-determination must be deconstructed, and cannot be assumed; especially when the cultures, economies, environments, and demographics of these particular communities of interest are so dynamic.

For example, in terms of commodifying country foods, Gombay (2010) could not find consensus among the Inuit people surveyed in Puvirnituq as to whether country foods should or should not be sold in- and outside of the community marketplace because of different prioritizations of economic and cultural values. Gombay (2010) identified that selling country foods could encourage traditional hunting and harvesting practices with economic incentive and subsequently promote community livelihoods, but it could also decrease the spiritual value of traditional foods and discourages sharing.

Similarly, Levi (2007) describes that supporting a butcher service in the Migmag [sic] community of Elsipogtog First Nation could encourage people to hunt and consume traditional food because it would relieve them of the time-consuming activities of cutting and preparing the meat; but this would also remove people from important traditional practices (investing time, preparing meat as a family, and utilizing all parts of the animal) and further traditional skill loss. This illuminates that tensions even lie in deeming food and practices culturally appropriate or not; that is, culture can be both a barrier and facilitator to mitigating food insecurity and increasing food sovereignty (Gaudin et al., 2015).

Burnett, Skinner, Hay, LeBlanc, and Chambers (2017) mention that while "Indigenous food sovereignty is essential to decolonizing local food environments… focus[ing] primarily on control over land- and water-based foods can obscure the fact that market-based food systems remain prohibitive in terms of costs and negligent regarding food selection and quality" (p. 332). They continue that, while "food sovereignty is imperative in First Nations communities, it does not preclude the need to have equitable market-based foods systems in operation and under local control as well" (p. 332). The challenges presented by existing market-based food system are urgent and strongly contribute to the experience and severity of food insecurity. In this context, too, it is important to keep in mind that the government outlaws the selling of country foods; another obstacle Indigenous peoples face in participating equitably in the market system and being able to earn a livelihood from food-related activities.

While food sovereignty does not inherently exclude the discussion of market food systems; food sovereignty researchers could more actively include market food sources in the discussion. Afterall, by dismantling land-based food practices the colonial project "forced communities away from local subsistence and pushed them towards using the land for profit and capital exchange", which also "forced a dependency on highly processed market foods that lack nutrient density" (H. A. Thompson et al., 2018, p. 408-409).

This forced dependence is accompanied by the monopoly the Northern Stores have over the market food system in territories and northern parts of the provinces. Again, a lack of control and sovereignty wreaks havoc on Indigenous food systems through high prices and precarious availability of fresh foods. While these high prices are, in part, attributed to higher transportation costs due to the distance food must travel, especially in remote (i.e. no road access) communities. Research from Wendimu, Desmarais, and Martens (2018) show that Manitoban non-First Nation urban centers that are equidistant or further from Winnipeg still have lower prices at their grocery stores than First Nations communities' stores owned by the Northwest Company (NWC), suggesting price discrepancies are about more than transportation costs. Plus, the exorbitant profits the NWC pockets causes further suspicion and requires justification (Burnett et al., 2017). In communities without year-round access in Ontario, Manitoba, and Saskatchewan, the Northwest Company has little competition and dominates the retail food market (that is, in 91%, 83%, and 72% of the communities in Ontario, Saskatchewan, and Manitoba, respectively, the NWC is the sole grocery retailer). This lack of competition permits high food prices and contributes to food insecurity.

The Government of Canada did consult with community members and other stakeholders on "how the program can be more transparent, cost-effective, and culturally appropriate in the face of growing demand for healthy food in the North" between May 2016 and January 2017, suggesting that some autonomy from the communities is being welcomed into the food market arena. However, "[t]here is a lack of clarity on how the findings within this report will be used by

INAC [Indigenous and Northern Affairs Canada] and the next steps for INAC in refining the program" (Government of Canada, 2017).[20]

Furthermore, in places like Saskatchewan, three to four million acres of First Nations reserve lands are being used for agricultural purposes by non-Indigenous farmers (Arcand et al., 2020). This is a result of centuries of "new ecological and economic realities" (to put it mildly) the Prairies experienced throughout the 19th century that actively and intentionally excluded First Nations peoples participating in agricultural systems (Arcand et al., 2020, p. 620). First Nations people signed treaties that provided agricultural provisions; but when Indigenous farmers worked collectively, had a robust understanding of the land and how to grow on it, and subsequently achieved higher crop yields than settlers, settler farmers worried about being outcompeted. Federally enforced restrictions and obstacles were introduced for First Nations farmers, including keeping them from growing collectively; institutionalizing residential schools that broke up families, interrupted intergenerational knowledge transfer, and enacted traumatizing assimilation practices; and enacting the Indian Act (Arcand et al., 2020).

When these intentional and calculated policies undermined First Nations communities and farmers, the Crown then "treated inactive use of agricultural land as justification to dispossess First Nations of their reserve land – often the highest quality land – first through amendments to the Indian Act that allowed for uncultivated lands to be leased to non-Indigenous farmers, then through the surrenders by sale" (Arcand et al., 2020, p. 621). Although some land was returned in the early 1990's to recognize Treaty promises, the impacts of an exclusionary and intentionally undermining agricultural industry in the Prairies has lasting impacts on First Nations communities and farmers.

As such, understanding the role of colonialism and disenfranchisement of Indigenous peoples and how that pertains to land *and* market food systems is essential. Combatting the systems that produce food insecurity in Indigenous communities will require building a more equitable and accessible market food system while decreasing dependence on grocery store by building local and country food capacities; not just returning to pre-contact food systems. The opportunities to

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[20] Key findings from these consultations can be found at http://www.nutritionnorthcanada.gc.ca/eng/1491505202346/1491505247821.

rebuild and re-establish Indigenous food sovereignty need not end at country foods; but must also include a discussion of market foods.

The role of gardens in rebuilding local food capacities

Gardens – home, community, and market – are a type of food-related activity that is being employed in various communities (food secure and insecure; Indigenous and non-Indigenous; Northern and Southern; in Canada and globally) to benefit food security, gardener wellbeing, connectedness to nature, and gardener knowledge (Chevrette, 2011). This type of food procurement can serve "as a buffer against economic upheaval inherent to the socio-spatial logic of uneven capitalist development… providing a modicum of food security, supplementing diets with fresh produce, and providing benefits to mental and physical health" (McClintock, 2018, p. 8). Furthermore, gardens are recognized as sites to explore ways "subsistence food production can increase food autonomy as communities gain more control over their food systems" (H. A. Thompson et al., 2018, p. 408).

My research looks at community and market gardens, and here I will provide an explanation on what those are and how they differ from one another. Community gardens allow people to cultivate food in a common area and may include individual plot cultivation and/or collective gardening (Firth, Maye, & Pearson, 2011). Market gardens can also be common cultivation sites of vegetables, fruits and/or flowers, but the intention is to sell produce to consumers directly, to farmers markets, restaurants, or wholesale, for economic profit and/or to invest that money into the gardens and workforce.

Academic studies rarely focus on market gardens. Those that do tend to focus on the agricultural and economic aspects, as market gardens are typically undertaken by individuals who are pursuing these ventures as livelihoods (Wong, 2005), rather than being a health promotion strategy. Wong (2005) notes that in developing countries (notably sub-Saharan Africa), there has been a rise in urban market gardening alongside rising urban poverty as people pursue these gardens for income related purposes. Kaldjian's study of Istanbul's market gardens (botsans) describes that they provide cities with fresh vegetables (meeting urban food needs) that people prefer over industrially-produced vegetables, and they provide employment; although urban expansion has resulted in the decline of botsans, succumbing some to be "conquered by concrete"

(2004). Airriess and Clawson (1994) describe that elderly Vietnamese immigrants in New Orleans from farming backgrounds benefit from market gardening both economically and emotionally: it provides them with a source of income (when they may have limited English language and marketable job skills) and allows them to stay active and maintain ethnic identity.

In both these studies, the gardens feed the individual gardeners and their families, and surpluses of fruits and vegetables are sold to grocery stores, restaurants, or at street markets. McClintock (2018) does not explicitly mention market gardens, but he describes urban gardens that supplement diets of and the surpluses of which provide supplemental incomes for racialized immigrants from rural and farming backgrounds and who may have difficulty finding employment otherwise in cities; and this also provides them with "biographical continuity" (p. 8) between their new homes and their countries of origin.

Market gardens, although not explicitly mentioned as such in literature, are also tied to the local food movement. One might start a market garden if they are seeking an "alternative lifestyle", if they come from a non-agriculture background (Bachmann, 2009). Jean-Martin Fortier, a Quebecois farmer who has written the well-known how-to book, The Market Gardener: A Successful Grower's Handbook for Small-scale Organic Farming (2014), runs a successful "micro-farm" and sells food through farmer's markets and Community Supported Agriculture shares, describes his "mission" as follows:

> My mission is to inspire, educate and empower people to work together towards multiplying the number of small ecological farms all over the world. This I believe, is how we can replace the poison and destruction of industrial agriculture with a food system based in nature and community. Food grown with care, by and for people who care.[21]

This type of sentiment around "small-scale participatory cultural economics" in the food system rings through local food systems movement rhetoric, which call for re-localization of agricultural systems for the benefit of ecological and human health (Feagan, 2007, p. 24). Although Fortier does not clearly describe the "poison and destruction of industrial agriculture" (2014, para. 1), the environmental and human degradation that is occurring under the dominant industrial agricultural system is well known and has urged exploration of alternative food production

[21] From http://www.themarketgardener.com/about-jm-fortier.

methods and food movements. For example, in North America, farms are decreasing in number, increasing in size, and decreasing in biodiversity; using more inputs (machines, fertilizers, and pesticides) to grow food; and food travels far and wide (i.e. heavily fossil fuel dependant) through globalized networks from concentrated production centers" (for example, California grows 73% of lettuce and 90% of tomatoes for the US) (Rotz & Fraser, 2015).

Furthermore, the International Panel on Climate Change describes the devastating ways climate change has impacted the food system through increasing temperatures, changing precipitation, and more frequent extreme events. They also describe how it will get worse and the ways the food system, itself, is contributing to 21-37% of total greenhouse gases; that is, how our global agricultural food system is actually implicit in its own demise (IPCC, 2019). While there is nothing inherently local or organic about a market garden – for example, they could use pesticides or ship produce to distant markets – and really, there is little that is prescriptive in its form, these garden/micro-farm businesses typically are small, use more manual gardening/less intensive farming techniques, and are run by families (Market Business News, n.d.).

Community gardens have garnered attention in health and food studies. A literature review by Draper and Freedman (2010) looked at benefits, purposes, and motivations associated with community gardening in the United States, and found they have many positive effects. They describe "this approach to gardening [as] the convergence of multiple individuals, joining together in diverse settings (e.g., schools, neighborhoods, city blocks, faith communities, prisons, nursing homes, and hospitals), to grow, among other things, food" (p. 459). Amongst youth, they found community gardens had positive impacts on diet and academics; they increased fruit and vegetable preference (and consumption, depending on fruit and vegetable availability at school and at home), gardening knowledge and self-efficacy; and they were associated with increased physical activity.

Community gardens can beautify a city, and be sites for participants to develop social skills, employable skills, and collective efficacy; and "have the potential to alleviate multiple societal ills, while at the same time highlighting the assets of communities" (Draper & Freedman, 2010, p. 488). They are seen as a means to promote health through increased physical activity and access to food, and build social networks and support by providing a physical site for people to gather, socialize, organize, and learn about their neighbours and happenings within their local community (Armstrong, 2000). Booth et al. (2018) suggest that level of participation could affect

how impactful community gardens are on participants; even occasional participants experienced more vegetable intake, higher levels of well-being, and community empowerment (compared to non-participants), but regular participation results in a greater sense of community, and more organizational empowerment.

Community gardens can also be sites for democratic learning and can transform eaters/consumers into active participants and citizens in their own food system and food culture. They are recognized for the way they “transform vacant lands into productive spaces, often at low or no cost to the government” (Cochran & Minaker, 2020, p. 159). Furthermore, sites of inactivity is transformed into a place of “purpose, people, and active use” (Garvin et al., 2012, p. 422) and strengthen community support networks in the process (Cochran & Minaker, 2020). Beyond developing gardening skills, the political and environmental implications of small- and large-scale agriculture can be realized, learned, and confronted in these spaces (Levkoe, 2006). Minkoff-Zern, (2014) highlights these tensions between small- and large-scale agriculture, describing how marginalized farmworkers in California, whose livelihoods involve growing food and yet personally experience food insecurity and hunger, have created “subversive” spaces (although not “structural solutions”) via community gardens to grow their own fresher, better quality food that they prefer and otherwise could not afford or receive through their wages or other food assistance services.

Most of the literature surrounding community gardens have taken place in urban society; tend to investigate impacts on wellness (ex. crime rates at intervention sites, food security of participants, social cohesion; Cochran & Minaker, 2020); a large focus has been on youth and school-focused initiatives; and very few have included Indigenous communities (Draper & Freedman, 2010; Skinner, Hanning, & Tsuji, 2014). In the North, Indigenous communities are indeed reviving traditional gardening practices and experimenting with new practices and technologies (ex. greenhouses) to mitigate climatic limitations on growing seasons (Rudolph & McLachlan, 2013; Skinner et al., 2014). H.A. Thompson and colleagues (2018) suggest that since the net cost of procuring traditional foods from the land (including cost of equipment, gasoline and vehicles, and infrastructure for preparing food) can be comparable to food purchased from the store, other methods of procuring nutritious food – such as community gardens – are being explored for their potential contributions to population health.

In terms of combatting food insecurity, consensus has yet to be reached on whether community gardens are combative against the deleterious effects of food insecurity or promote wellness. Huisken, Orr, and Tarasuk claim that at the population level, adults' gardening practices (and food skills) in Canada do not contribute to food security (2017). They describe food insecurity as an indication of financial hardship rather than a deficit of food or gardening skills, and so community gardens do little to help low-income individuals that are most in need to transformative interventions. A small study (n=50) in Guelph, ON is in line with these conclusions, which showed few gardeners could produce food in their community garden at a lesser price than store-bought, especially when the compensation for their labour in the garden was considered (Cochran & Minaker, 2020). As well, H.A. Thompson and colleagues describe that their hoop garden in Wapekeka First Nation as it could supplement diets seasonally but is "not a solution in itself" (2019, p. 418).

But, of note, Huisken, Orr, and Tarasuk's (2017) claims are reached using existing population data (CCHS data from 2012 and 2013) that includes mostly urban, rental households (i.e. with limited garden access); and the "contextual diversity of community gardens makes site-specific data extremely important and hinders cross-application of studies from other contexts" (Cochran & Minaker, 2020, p. 169) so this claim provides little information for predicting how introducing a community or market garden into a Northern Indigenous community experiencing a nutrition transition could affect food security.

Of note, Cochran & Minaker (2020) describe how very few studies focus on the economic return on investment community gardens provide which "may hinder recognition of their value among decision makers" (p. 169). This creates a gap: if we consider food insecurity to be an inherently economic issue, it can be difficult to assess the impact community gardens have when they are not inherently an economic-focused solution. Furthermore, studies rarely examine the "reproduction of inequities" that may unintentionally come with community gardens (ex. community gardens may be established in more affluent areas; there may be fees associated that make them inaccessible to people who tend to be more food insecure; or people with more leisure schedules or incomes may have the time and resources required to utilize the garden space, which socioeconomically disadvantaged people lack) (Cochran & Minaker, 2020). While their benefits seem to outweigh their detriments, it is important to consider these gaps in knowledge.

Gardens in Indigenous communities

In respect to studies conducted in Indigenous communities, there have been site-specific research that describes the uptake in community gardening projects as a means to rebuild local food capacity and combat food insecurity. Community gardens have been “emerging as an alternative solution to the unavailability of nutritious market and hunted or gathered foods in many communities” (H. A. Thompson et al., 2018, p. 408). Research by Chen and Natcher identify that in Canada’s Arctic (Labrador, Nunavik, Nunavut, Yukon, and the Northwest Territories), there are 36 community garden and 17 greenhouse initiates (2019). In the academic literature, community gardens show up as interventions of studies implemented by academic researchers; and, in rare instances, as implemented by the community themselves. Overall, gardens are providing very important and necessary benefits but are insufficient in transforming the food system of the community. As well, common struggles – ongoing funding, human resources, and lack of gardening expertise – have arisen among many gardens and stunted their productivity (Ross & Mason, 2020).

Interestingly, a lack of academic studies on Indigenous communities that have established their own community gardens or greenhouses presents a gap in the literature, not a lack of such gardens’ existence. Grey literature – mainly newspaper articles – have identified gardening initiatives that have been self-established by Indigenous communities. For example, the Haíłzaqv community of Bella Bella in British Columbia has been working on community garden initiatives since 2017, and recently began exploring “grannie gardens” (i.e. distributing gardening materials and teaching households to grow individual gardens) (Fawcett-Atkinson, 2020). In Waywayseecappo First Nation in Northern Manitoba, the community has worked with Feed the Children to establish three community gardens, which has sparked interest among 19 other First Nation communities who also want to explore such initiatives (Riley, 2017). In the Atlantic provinces, six communities – Potlotek First Nation (Nova Scotia), First Nation Annapolis Valley (Nova Scotia), Lennox Island (Prince Edward Island), Miawpukek (Newfoundland and Labrador), Eel River Bar (New Brunswick, and Kingsclear (New Brunswick) – have been working with Digital Mi’kmaq (an Indigenous-led education and training organization) to implement gardening and greenhouse initiatives (Edwards, 2020). As grey literature, these sources provide evidence of the gardens’ existences; but lacks an in-depth analysis of their impacts. There are numerous

gardens across First Nation and Inuit communities – including the 53 briefly identified by Chen and Natcher (2019) – to study the impacts of a community-led gardening or greenhouse initiatives in depth.

A study conducted in a First Nations community in Northern Ontario measured no direct link between wellness and a community garden; but there were positive association between well-being and identity, traditional food consumption, and physical exercise, all of which could be cultivated through community garden projects (Trull, 2009). In Inuvik, NWT, a greenhouse has shown very promising results: it has increased civic pride, increased tourism, strengthened a sense of community, encouraged community development, and increased food security. Similarly, a greenhouse project in Fort Albany, ON had positive effects on those directly and indirectly involved in the garden: for example, it provided seeds to home gardeners and the compost system reduced community waste (Skinner et al., 2014).

In Northern Manitoba, a positive association was found between gardening and food security, and gardens support active living and nutritional diets; but a short growing season and poor soil conditions implies these benefits are seasonal (Thompson et al., 2012). Stroink and Nelson (2009) conducted gardening workshops in two First Nation communities in Northern Ontario and found that most people are drawn to buy food from the dominant food system because of convenience and price, over local food sources (hunting, fishing, gardening); and use of the dominant food system was also reinforced by limited knowledge of local foods and how to acquire them. But still, accessing local foods were associated with better "self-reported health, life satisfaction, and social capital" (p. 267).

Timler et al. (2019) described how gardening initiatives could benefit from being accompanied by cooking workshops in communities where knowledge about garden-grown foods and how to consume them is not common. In this study, the researchers examined the impacts of a prison garden program that donated food to remote and rural Indigenous communities. In the beginning, the intervention focused solely on distributing food, which "truncated the meaning of food to mere nutrition"; but upon creating workshops where food preparation was taught *and* relationships were developed between the growers in the prison and the consumers in the community via sharing pictures and thank you notes, the project was more valuable because it was more in line with the community values of reciprocity. This unique intervention allowed people to

receive food, but it was "unable to redress the ongoing colonial context that impedes access to meaningful and culturally-mediated food and foodways" (p. 101). Its findings reinforce the concept that relations and reciprocity are integral to Indigenous food systems.

In Wapekea First Nation, hoop-house gardening is studied as "complementary to traditional food practices" (H. A. Thompson et al., 2018, p. 408); and in Fort Providence, hydroponics, aquaponics, and greenhouses are being explored as an adaptation strategy to "confront the manifestations of food insecurity and to cope with the unpredictable impacts of climate change" (Ross & Mason, 2020, p. 27). In both cases, the growing of food is not the problem, since the methods used produced food abundantly and rather quickly. Instead, growing the types of food the community wants to eat, educating and introducing new foods to the community, and teaching gardening skills to perform upkeep and timely harvesting are part of the learning curve (Ross & Mason, 2020; H. A. Thompson et al., 2018). In both cases, ongoing funding, training, and community involvement are essential to experience these initiatives' full potential; but even at full capacity, these types of projects can only supplement rather than transform vegetable intake within Northern, Indigenous communities.

A limited knowledge base around the impacts of uptake in gardening activities among Northern, Indigenous communities further stress the need to identify where these initiatives are taking place, how they are being implemented, and what impacts this has on specific communities under very particular circumstances. As well, identifying where they are being pursued provides opportunities for communities to learn from each other and provide insight for others seeking to initiate similar projects (H. A. Thompson et al., 2018). It is clear that while community gardens are not a panacea for all food issues, there is no evidence they have a negative impact on communities where they are currently being employed and studied. Moreover, there is evidence that they provide positive outcomes like improved well-being, community connections, and knowledge around growing and procuring food.

The Role of Gardens in Indigenous Histories

Gardening and agriculture hold a contentious position in Indigenous history. As Rudolph and McLachlan state, "Attempts to convert Indigenous peoples into agriculturalists are… long-standing" and part of an "eco-colonial" effort of the government to "expand the agricultural

frontier into the far north while assimilating Indigenous livelihoods" (2013, p. 1082). Likewise, Soloway describes the HBC's introduction of "British planted-food models" via gardens in Rupert's Land as mechanisms of horticultural imperialism, furthered by religious and governmental agencies that which drove the transition of Mushkegowuk foodways from "gathered to gardened to purchased" plant foods and changed landscapes (Soloway, 2015).

The use of gardens in residential schools also implicate them as tools of "cultural erasure and forced assimilation" (McClintock, 2018, p. 5). At some residential schools, like the one in Spanish, ON, gardens and farms were used to provide food and profits for the schools, but were run by overworked students who still received inadequate diets (Miller, 1996). On the other hand, studies such as Shuklar et al. (2019) that took place in Fisher River Cree Nation, Manitoba note gardens historically were essential to providing family household food security, and the colonial influences of a modern wage economy and the introduction of welfare actually eroded the prominence and benefits of gardening practices.

Prior to European contact, some Indigenous societies had their own ways of growing food: Indigenous peoples in the lower Great Lake and St. Lawrence planted maize, squash, and beans and these goods would be traded with other bands for skins and meats (Taylor & Dick, 2007). As well, archeological records show that as early as 3000 years ago, settlements like the one at Lockport, north of Winnipeg, had fashioned gardening tools out of bison bones, grew corn, and stored the corn in large pits (Flynn & Syms, 1996). However, European settlers viewed Indigenous farming, hunting, and gathering systems as invalid: because these agricultural activities did not resemble the European cultivation systems, they were ignored and considered non-existent by settlers (Grey & Patel, 2015). for example, they took place in forests and coastlines, and used inter-cropping and little human interference until harvest (McClintock, 2018; Soloway, 2015).

Furthermore, the European settlers brought with them the "colonial narrative of economic development", which changed not only how food was procured but also the end goal of the process (Thompson et al., 2018, p. 409). That is, communities were pushed away from living off the land according to subsistence-based needs and settlers imposed the notion that land was to be used for profit and its products for capital exchange (Thompson et al., 2018).

In the Prairies, when First Nations people were moved to reserves in the 1870's, part of the Treaty agreements (ex. Treaty 6) included the provision of farming tools and seeds by request of

the First Nations people as a means of food procurement since the decline of buffalo populations and waves of smallpox were threatening their survival (Dawson, 2001; Tang, 2003). However, many reserves that Indigenous communities were relocated to were areas that were not suited to farming; and the farming tools promised in the Treaties were not always provided (Dawson, 2001). And, when Indigenous farmers were successful, government policies were introduced through the Indian Act to hinder them. Reserve farmlands were divided and restricted to smaller plot areas and Indigenous farmers were discouraged from farming or purchasing equipment collectively. A peasant farming policy meant on these small tracts of land, Indigenous farmers were expected to use “simple tools” to feed themselves and their families, such that these restrictions on productivity would “protect and maintain the incomes of White farmers” (p. 7). The Pass and Permit system meant all First Nations farmers needed a permit from an Indian agent to leave the reserve (Pass system) and to sell their products off reserve (Permit system), which severely hindered their ability to participate in the agricultural economy (Tang 2003).

Undermining Indigenous food systems for the sake of promoting settler society expansion, industrial agriculture, and natural resource extraction continues to threaten Indigenous societies. The need to fill “empty space” or utilize “idle land” for economic gain with no acknowledgement for the First Nations people inhabiting the areas or Indigenous uses and values of the land are embedded in Canada’s history and continues to effect land sovereignty, and consequently food systems and food sovereignty for Indigenous peoples (Arcand et al., 2020; Wood, 2006). Canada inhabits a “liminal space, with renewed struggles for and commitments to Indigenous and food sovereignty on one hand, and growing capital interest in land governance and agriculture on the other” (Rotz, 2017).

Any analysis of gardens’ potential impact or use case requires this context. While gardens were part of some communities’ food history, for many, they represent just another colonial tool designed to subjugate and manipulate.

Conclusion

The literature on Northern Indigenous food security recognizes a need for research to explore community-specific preferences and capabilities, and contextually-appropriate and feasible opportunities and solutions for relieving food insecurity. Recognizing and describing food

insecurity, as most of the literature does, calls for remedial action; but, using a negative definition only establishes what food security does not look like. In order to bridge the gap between being food insecure and achieving food security, an integrative framework that considers the food's role and place in Northern Indigenous communities must be employed – prompted by community food security. A food sovereignty discourse prompts consideration of the role colonization, disenfranchisement, and loss of autonomy of land has gravely injured many aspects of Indigenous food systems. This framework highlights flaws in top-down decision-making processes, particularly because they ignore communities' experiences, values, and capabilities and reinforce power imbalances that are at the core of many food insecurity issues.

This literature review also explored the role of gardens in providing a self-determined, localized food source. Gardening initiatives may combat food insecurity, and such initiatives have been seen to have positive impacts on participants. However, we must also pay mind to the problematic ties gardening and agriculture have to colonialism. An inclusionary and comprehensive framework that embraces heterogeneity across and within Northern Indigenous communities is essential for understanding how food security is being maintained or could be achieved, which will complement the body of literature that indicates food insecurity indeed exists.

This project examines the gardening initiatives started by Cumberland House as a focal point to understand this community's food system; if/how a localized food procurement system is affecting community members' health and well-being; and what these Gardens, their operations, and their impacts can teach us about building more resilient food systems and combating food insecurity in Indigenous communities. The next chapter describes the methodology I employed to investigate these gardens and explore these queries.

CHAPTER THREE

Methodology and Case Context

This chapter describes the methodology employed in this study, establishes my positioning as a researcher, and provides an overview of the case. Beginning with the research design, this chapter reviews the rationale for a case study approach, the community-based approach used in my research, and methods of data collection and analysis. Following this, I situate myself in the research as my positionality impacts how this research was conducted. In the final section, I provide a description of Cumberland House village.

As this is a case study, understanding the case context is integral to interpreting the findings. This case study context will be drawn from secondary sources as well as findings from my time spent in Cumberland House, with reference to interviews and my observations from the three weeks I spent in the community.

Research Design

Community-based approach

This study predominately involved First Nations and Métis peoples. I am grateful for and reliant on the knowledge that resides with community members. The study is community-based: where possible, input from the community members was incorporated into the research design. By using community input, I intended for the process and results of the research to be relevant and constructive. As Skinner, Hanning, and Tsuji state, “Participatory methods are imperative for successful research in Aboriginal communities” (2005, p. 150).

Though participatory action research would have been ideal to employ, time constraints kept me from using complete participatory methods. I aimed to incorporate some of its principles in my research process by consulting key informants during the planning phase and using participant input for participant selection during the data collection. A condensed précis was written and provided to the research participants to share the findings with them; and a full version of the thesis was also sent to the community.

From reading work done by the Indigenous People’s Health Research Centre in Saskatchewan, I recognize the importance of increasing Indigenous voice and influence in politics,

health, and health research policy. They encourage the use of OCAP principles[22] in research, and stress the need to "heed the expertise of those who live at the front lines of Indigenous health practices. Indigenous peoples are not satisfied with the status quo of health and are not satisfied with health outcomes that reflect systemic problems in policy, funding and program design and delivery" (Sinclair et al., 2006, p. 8).

Although I did not use a strict OCAP framework in my research because of time constraints (e.g., creating a Memorandum of Understanding, for example, takes much deliberation between the researcher and research participants and such a high level of consultation did not seem necessary for a short-term Master's thesis), I understand the importance of conducting research in a respectful, non-exploitative manner. I ensured participation was voluntary and obtained consent to use the knowledge shared with me.

This research was community-based at its inception. This project was initiated at the request of a member of Cumberland House town council (Alan Bishoff) who was interested in investigating the Market and Community Gardens. My supervisor, Dr. Schiff, had worked with the community previously. When I expressed my interest in doing research in Northern Saskatchewan since this area is under-researched, Dr. Schiff connected me with Alan and he expressed interest in doing research on the gardens to better understand the social benefits of this initiative. Before arriving in Cumberland House I contacted other key informants (namely, people involved in the implementation of the MG as well as Dr. Graham Strickert, a University of Saskatchewan professor involved in "Delta Dialogues" research project with Cumberland House) to seek their input on the proposed research; context for understanding the situation that exists in Cumberland House; and suggestions for how to frame research objectives and questions.

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[22] OCAP stands for Ownership, Control, Access, and Possession. It provides "a framework related to data ownership, collection, analysis, and dissemination… [and] provide[s] a political response to counteract the harm done to First Nations by research that failed to respect the importance of understanding the First Nations way of knowing while treating First Nations as specimens rather than people with specific human rights" (Assembly of First Nations, 2007, p. 5). It also stresses that Indigenous people can refuse proposed research that is not relevant, does not benefit, or could be harmful to them/their communities (First Nations Center, 2005). It applies self-governance and self-determination to research done with First Nations people. NOTE: "Although OCAP originates from a First Nations context, many of the insights and propositions outlined are relevant and applicable to Inuit, Métis and other Indigenous Peoples internationally" (First Nations Center, 2005, p. 1).

To the utmost of my ability, I have endeavoured to go by the principle that "[w]hat is acceptable and not acceptable research [will be] determined and defined from within the community" (Denzin et al., 2008, p. 40). A condensed version of my proposal was sent to key informants via email (Alan Bishoff, current town council member; Gary Carriere, past town council member; Murray Gray, gardening consultant for the market garden), along with an invitation to provide feedback and prompt revisions (only Alan responded with some corrections). I also sought the advice of Alan and Gary in the initial stages of purposefully sampling gardeners and non-gardeners in the community. Alan was the most involved and provided me with a place to reside. As an outsider, I appreciated the "in" this provided me with, although it certainly impacted who and how I interacted with folks while in Cumberland House.

I arrived in Cumberland House September 22nd and left October 11th, 2017. During this time, I spent a significant amount of time getting to know the village and getting people to know me. When introducing myself to people in the gardens or in town, I described my researcher role, and was very open about the purpose of my visit.

During my stay, I spent a lot of time at the Community Garden, the Market Garden, the elementary school (Charlebois Community school), and with my hosts. I attended community events, mostly hosted through the school which included potlucks, a football game, and a duck soup cook-out. During this time, I resided independently in a cabin on Alan's property, which is conveniently located beside the Community Garden and across the highway from the Market Garden (see Figure 3.3). I experienced what it can be like to acquire food in Cumberland House: I shopped at the local food outlets (the Northern, Mum's, CJ's, Chief Island community store), harvested from the community garden (with permission, of course), shopped at the market garden, bought food through home sales, drove to Nipawin Co-op to examine prices, and shared meals, food, and a Thanksgiving dinner with interviewees and non-interviewees.

Making myself visible and accessible to community members came with some difficulties, though; my residence was a ten-minute drive from the village center along under-kept, pot-holed roads, and there were few places to comfortably "hang out" in the village. I spent time walking around, sitting by the river or outside of the Northern Store, and at the town hall during market garden sales; but otherwise, there were few public spaces for gathering and socializing. For these

reasons, I spent most of my time at the school or gardens, relied on snowball sampling, and developed most of my relationships at these spaces.

Throughout the data collection process, I provided food during some interviews (e.g., homemade chili, roasted chicken, vegetables from the community garden) as a token of gratitude, and in some cases I received food (e.g. moose meat, zucchini loaves, jalapeño duck poppers); what better example of the place food holds in this community. Also, I volunteered time in the Market Garden through harvesting and helping with sales, and offered to tend to plots in the Community Garden; in part, for the purpose of participant observation but also as a way of reciprocating the time people gave to me during interviews. I am grateful for the community and those who allowed me to immerse in their food experiences.

I provided all participants with my cell-phone number and email address, and extended an invitation to them to contact me to see their interview transcripts, ask about the research, or withdraw from the study at any time. Two participants have kept in touch with me to provide me with information they did not mention during interviews, and to ask how the drafting was going.

As well, I contacted a few participants to ask for clarification about their responses; and to discuss matters further. In April 2018, I attended an event where an Indigenous gardener from Winnipeg, Manitoba discussed how she preserved her food by dehydrating it, which she said was better for retaining nutritional content and cutting down on storage space, compared to canning. I contacted the current Market Garden coordinator to tell him about this, in case this might be an idea worth exploring to overcome some of the storage issues being faced by the gardens.

Although I do not plan to return to Cumberland House for any post-research follow up, I did remain contactable and reached out to some participants for follow-ups to our interviews in the two semesters following my visit. As well, a condensed report describing the research findings and the full thesis was provided to the participants and community, respectively, after the process was complete.

Rationale for a Case Study Approach

This study aimed to understand how the gardens in Cumberland House contributed to the health and wellbeing of the community members; namely, how these gardens contributed to or affected the community residents' food security. Such an understanding requires inquiry and

investigation deeply rooted in context, starting at the community level; especially in Northern Saskatchewan, where there is a dearth of research on Indigenous food security. Notably, Cumberland House is not a reserve, but instead a remote municipality that is predominately home to First Nation and Métis people, adding further to this pigeon-hole niche.

This study explored the lived experiences of a Community and Market Garden on a particular Northern Saskatchewan community populated by mostly Indigenous peoples using a case study approach. Qualitative research, in general, "attempt[s] to understand how the participants experience and explain their own world" (Jackson & Verberg, 2007, p. 14). Case study research, specifically, allows for an in-depth understanding of issues and by using cases as specific illustrations rooted in a real-life, contemporary context or setting. Instrumental case studies can be used to better understand a larger problem or area of concern (Creswell, 2013).

This particular project investigated two local food initiatives in Cumberland House – the Community and Market Garden - as an instrumental case study. The findings from this study provide specific information about the experiences related to gardens of a Northern, remote, predominately First Nation and Métis setting in Saskatchewan, which will contribute "assertions" (Stake, 1995), "explanations" (Yin, 2009), or "general lessons" (Creswell, 2013) to the current dialogue surrounding Northern Indigenous food security, food sovereignty, and food-related health interventions in Canada.

To clarify, it is a general rule to be reluctant to generalize from one case to another because case study contexts differ (Creswell, 2013). This study took place at a certain time and place; the research was conducted in a particular way by a single person; and it presents a temporal snapshot of this community and its gardens. Had I visited in a different year or at a different point in the season, my observations likely would be different. As will be described in the findings, a major transition in governing structure of the market garden occurred the year before I arrived to conduct research, which had significant impacts on garden operations and trajectories.

Prior to arriving, I was warned by a previous market garden coordinator via email, "You will not see it in its greatness" (verbatim). As well, at the community garden, membership was very low because of a wet spring. I was told that the community garden was having, "Late start for sure and fewer people planting but still alive" (verbatim). And so, I was advised that I would not be seeing these gardens in their prime.

This was not an impediment to my research, but rather an opportunity. My intention was to understand why these gardens were there and what they were providing (even in a year of lower productivity/membership). These tensions and issues would provide unique material for understanding some of the challenges faced in sustaining such initiatives. This study is meant to highlight and analyze a particular garden in a particular context, not generalize or provide a universal set of guidelines. This information could be helpful for other communities in Saskatchewan and remote communities across the country implementing similar garden strategies.

The decision to focus on a single instrumental case study (versus including other, neighbouring communities involved in similar food initiatives) was in part because of time and budget restraints provided by my curricula and funding. Focusing on Cumberland House allowed for due care and attention to be paid to the community beyond the four corners of the garden plots.

Complex and sometimes contradictory accounts arose from the data (as was encountered by Gaudin, et al., 2015; Gombay, 2010; Levi, 2007), showing that even taking on one community over a one-month data collection period and analyzing that data was a challenge. Since I was entering this community as an outsider, it was important to spend time developing trust and relationships with community members before I began data collection. This takes a significant amount of time and energy that came with great rewards, and this could not be achieved had I spent the same amount of time spread out across multiple communities.

Rather than dropping in, taking data, and leaving, this extended stay in Cumberland House provided me with an opportunity to have a better understanding for how the food system and these gardens work and do my research better. As well, it helped me build trust with my participants and let them know what my intentions were with the research. I was able to give each participant ample amount of time during an interview (they typically lasted an hour) to get to know me and share their perspectives, knowledge, and provide feedback at the level of detail with which they felt comfortable. This style of research makes me feel I was listening to and sharing with – rather than taking knowledge away from – the community. As well, I have provided the community with a condensed report of my findings, such that the research could be used for the good of the community and hopefully provide some insight to those involved in the gardens for their benefit.

Data Collection

Consistent with the literature on case studies that encourages the data collection in case study research to be “extensive, drawing on multiple sources of information” (Creswell, 2013, p. 100), my research included semi-structured interviews, participant observation, and documents. On-site data collection occurred in Cumberland House, September 22nd to October 11th, 2017. This took place at the end of harvest season. Methods and approach obtained ethics approval through the Research Ethics Board of Lakehead University.

Semi-structured interviews were done with coordinators, gardeners, and non-gardeners. Participants were offered the option to do group interviews. A total of 18 interviews were conducted; three were group interviews. A total of 26 people were interviewed. These interviews allowed me to converse with community members and ask about their relationships and experiences tied to food and the market and community gardens. Interviews took place in participants’ homes, at the market garden, at the school, at my host’s house, during an evening walk along the highway, and at an outfitting camp on the Saskatchewan River. They ranged from 24 minutes to two hours and 45 minutes, depending on how much time the participant had to offer and how much they were willing to share.

Some interviews were more structured than others. I used an interview guide (Appendix 2) to facilitate discussion, asking a range of questions about personal experiences of living in Cumberland House, acquiring food from stores and the land, their thoughts on the introduction of and their experiences with the community and market garden. In keeping with the style of semi-structured interviews, I was very open to letting participants bring up what they thought was important, which I believe they appreciated and made them feel more comfortable speaking with me.

It also allowed me to understand what other thoughts, stories, and experiences they associated with food and the gardens. Fowler and Mangione (1990) explain that interview standardization (i.e., reading questions exactly as written) can impede developing rapport with interviewees. Conrad and Schober (1997) explain flexible interviewing can be best for people in “atypical” situations. Since I had never been to Cumberland House before, and some of these people had never participated in interviews before, this style felt most appropriate. However, the flexible structure also posed some challenges when it came to coding, since the interviews and

their responses were not quite standardized. This is consistent with the literature (Bell, Fahmy, & Gordon, 2014).

Food sharing was part of some of the interviews; to most interviews I would bring a coffee, food from the Community Garden, or food that I had prepared for the interviewee. In some cases, participants shared food with me. All interviews were recorded and conducted in English. Before each interview, an information letter and consent form were provided and read over with the participant(s), and consent was obtained and recorded on the form or given verbally and audio-recorded (Appendix 1).

Overt and "participant as observer" participant observations took place predominately at the Market and Community Garden, where I acted as a "participant as observer". This role is described by Creswell as when "the researcher is participating in the activity at the site. The participant role is more salient than the researcher role" (2013, p.166-67). In total, I spent approximately 16 hours at the Community Garden, weeding plots and harvesting. I spent 15 hours at the Market Garden, harvesting and selling food. I spent a number of hours socializing at both the Gardens over the three weeks.

My schedule was flexible to take most advantage of opportunities to talk to folks. At times, I would visit these sites based on my own set schedule; and other times, I would go in if I saw someone in the CG, or if the guys at the MG said they needed help. As an unfamiliar face and an "overt" researcher (e.g.. I always introduced myself as a Master's student from Lakehead University) I was met with different reactions.

Approaching people in the CG, some seemed uncomfortable when I offered a hand, or they politely said they preferred to work alone with their family. Others were excited to talk, invited me to work alongside them or share food, took me up on my offer to weed their plots, and/or agreed to follow up with an interview. At the MG, especially during the busy harvest time, I believe the extra pair of hands I could offer was welcomed.

As mentioned, I also spent time engaging in the local food system, purchasing food from local stores and home sales, participating in some food and meal sharing, and attended some community events. The school became another site I frequented and lent a hand. I helped cook a post-football meal for students and teachers, participated in a potluck, and attending a meal hosted by the grade seven class where I learned alongside students how to pluck, singe and cook a duck

for a traditional soup. My host, Alan, suggested I spend some time at the school to meet people for interviews, and this became the main site in the village where I spent time.

As an outsider to this community, conducting participant observations provided two benefits: to collect observational data to give me a better understanding of the context I was working in, and build relationships and rapport with community members. For example, at the start of one interview, a woman remarked, "Oh, you're that lady that's been helping at the Market Garden! I've heard about you!" before we started talking. The work gave me some credibility: I would typically show up to interviews with dirt under my fingernails, to which a few participants smiled and commented that I must be working hard in the Gardens.

Field notes were recorded in a daily journal and I used an Observation Protocol to guide my notes (Appendix 3). The observation prompts I used to create my Observation Protocol were incited by Mack, Woodsong, MacQueen, Guest, & Namey's list of "What to observe during participant observation" (p. 20, 2005). I recorded my observations of the Gardens and community (e.g.. people I saw at the Garden, things that were grown, prices of food at the Northern Store and in Nipawin – see Appendix 4), summaries of conversations and interactions I had, hand drawn maps of the gardens, and personal feelings and reflections. Notes were taken during my time in the garden and around the community, and also at the end of the day. Prices, observations, and interactions are included in my findings to add context and information beyond what came up in interviews to enrich the data.

Documents collected mostly consisted of pictures taken around town and at the Gardens. An original business plan of the MG was provided to me. I had hoped to collect a record of market garden sales, or community garden registration, but neither records have been kept by coordinators. While there are limits to my point-in-time case study, the observations would have certainly been enriched by historical data on sales, membership, and yields.

Participant selection

This study used purposeful sampling and recruited current Market Gardeners, Community Gardeners, past and current Garden coordinators, and other community members from Cumberland House village. Of note, the community garden is used by people from Cumberland House the village and the reserve; and the market garden sells food in the village, but shoppers come from the reserve, too. I could not contact someone from the First Nation to get permission

to conduct research, so my research excludes that community. This narrowed my participant selection to the village.

My intention for choosing community members with different levels of involvement in the community initiatives was to approach purposeful maximal sampling – i.e. "select[ing] cases that show different perspectives on the problem, process, or event" - which would provide broad and varied perspectives on the gardens' fit, benefits, and challenges (Creswell, 2013, p. 100).

A total of 26 people participated in group or individual interviews. This included one current Market Garden coordinator; two past Market Garden coordinators; two Community Garden coordinators; three employees at the Market Garden; five Community Gardeners; and 15 non-Gardeners (includes overlap). All but one identified as Indigenous, and two currently do not reside in Cumberland House but have participated in the Garden projects. The mean age of participants was 52 years old. All participants were assigned a pseudonym, and their attributes are summarized below in Table 3.1. Many identifiable characteristics have intentionally been left out to protect anonymity.

Within these groups, participants were sampled using network and convenience sampling methods. I approached people at the MG and CG, buying food at the MG, at the health center, at the daycare, and used networks through teachers at the school and Alan for recruitment. I benefited from suggestions that had been provided to me in the planning stages of my research by people involved in the implementation of the MG. I pursued participants' suggestions for other people in their network who should be interviewed via phone (with varying degrees of success) but mostly conducted interviews with people I had personal interactions with or was personally introduced to by participants, since they were the most responsive. For this reason, the relationships I made at the gardens, through Alan, and at the school were important for recruitment.

I do not think I would have had the access, contexts, and background for successful research without Alan's help. That said, it is crucial for this research to recognize the limitations of having this sort of help. Undoubtedly, my observations were skewed by and limited to my connections through my host.

In early interviews, people identified that Elders and young mothers as disproportionately affected by food insecurity, so I set out to hear these voices. I reached out to a public health nurse and a teacher at the school who I had been advised worked with these groups, and they helped me

arrange group interviews. One participant was not from Cumberland House, but participates in the community garden to grow food for the women (aka the Kookems)[23] living in the Elders' residence. She invited me to join her when she dropped off the vegetables. I used this opportunity to conduct a group interview. A teacher at the school invited me to her grandmother's house where I interviewed her, her grandmother, and her cousin; and she also invited me to a potluck at the school hosted for the CAPC (Community Action Program for Children) group[24], where afterwards I conducted a group interview.

It should be noted that the representativeness of this study is limited. One interviewee, Brian, made the comment (which will be elaborated in the "Setting the Case" section below), "I don't care what anybody says, there are two different types of people in Cumberland: there's the low-income people, and then there's the people that work at the school and have jobs." While I did not ask every participant about their employment or income status, using the networks that I had (primarily through the school) may have limited the representativeness of this study. Seventeen of the 26 indicated employment by describing jobs or entrepreneurial activities they were involved in (ex. teaching at the school, commercial fishermen, fire fighter, working at the daycare, owning a business, town council members); three were retired; and three indicated they were unemployed, had no income or receiving SAID (Saskatchewan Assured Income for Disability).

Under the circumstances, I did my best to include a range of voices and experiences in my interviews; and using the networks I had and establishing those relationships allowed for me to have meaningful discussions with the participants I did interview.

Table 3.1: Summary of participants' characteristics

Participant Pseudonym	Indigenous?	Age (if provided)

[23] Kookem is the Cree word for Grandmother, and it is the affectionate term for the three women living in the Elders' home. They also go by the nickname The Golden Girls.

[24] In the words of Brenda, CAPC is "funded by the federal government, public health agency of Canada… [sponsored by] the school, Charlebois […] The program is open to parents of children 0-6. And in the program, what we try to do is, try to help the parents to be, not self-supporting, but like raise their self-esteem by teaching them things and like looking at the determinants of health and then go in those areas and try to help them not overcome, but cope with them, overcome them, you know. Whatever obstacle may be in their way."

1 – Dan	Yes	41
2 – Wanda	Yes	
3 – Greta	Yes	68
4 – Harriet	Yes	44
5 – Ellen	Yes	49
6 – Sherry	Yes	42
7 – Karen		42
8 – Delene	Yes	88
9 – Lukas	Yes	53
10 – Grant	Yes	53
11 – Isaac	Yes	
12 – David	Yes	
13 – Brian	Yes	58
14 – Wayne	Yes	58
15 – Albert	Yes	51
16 – Colin	No	68
17 – James	Yes	54
18 – Amy	Yes	52
19 – Brenda	Yes	59
20 – Samantha	Yes	29
21 – Sue	Yes	23
22 – Heather	Yes	35
23 – May	Yes	19
24 – Olivia	Yes	81
25 – Lillian	Yes	58
26 – Cassie	Yes	81

Data Analysis

Documents and data collected via observations and interviews were analyzed in depth. Interviews were audio-recorded then transcribed verbatim; field notes were hand-recorded or typed and compiled with pictures taken on corresponding days. Upon returning to Thunder Bay, data

analysis using qualitative coding methods were conducted using NVivo to find common themes across the different sample groups in terms of reasons for, primary benefits of, and challenges associated with the community initiatives. From these codes, findings emerged in two major categories: reasons for pursuing communal gardening initiatives, and consequences of their implementation (i.e. primary benefits and challenges).

Situating Myself

Situating myself in this study is important because it acknowledges that my background, gender, social class, ethnicity, values and beliefs construct my reality and affect my research; and this encouraged me to apply reflexivity to my research (McCorkel & Myers, 2003; Sword, 1999).

This study employs qualitative research methods and embraces an interpretive framework, and reflexivity. This is consistent with and encouraged by most qualitative research(ers) (and, according to Watt, it makes for better research; 2007). As McCorkel and Myers state, "the researcher's positionality affects all aspects of the research process – from the articulation of a research question to the analysis and presentation of the data" (2003, p. 199). Moreover, qualitative researchers recognize themselves/researchers as "the primary 'instrument' of data collection and analysis" (Watt, 2007, p. 82). Reflexivity and self-awareness were ongoing throughout the research process, and it was tracked with memoing and journaling (Boutilier & Mason, 2012).

Beyond being the author of this thesis: I am a third-generation white settler Canadian originally from Milton, Ontario; a bedroom community suburb of Toronto. I completed my Bachelor of Arts at the University of Toronto (2010-2015), where I double-majored in Health Studies and History. I have spent most of my life in Milton or Toronto and was first north of French River[25] when I moved to Pickle Lake (a seven and a half-hour drive north of Thunder Bay) in 2012 to fight forest fires. I spent three consecutive summers in Pickle Lake working as a forest fire fighter.

These summers impacted my worldview greatly. My thoughts and feelings around food and eating came from an upbringing that included mostly home-cooked meals that usually included

[25] The French River is the dividing line between the Sudbury and Parry Sound districts of Ontario and it is the unofficial border between Northern and Southern Ontario.

meat and vegetables; I was taught to eat processed food in moderation; and a well-stocked grocery store was never more than a five-minute car ride away. Being well-fed by food I deemed appropriate, tasty, and healthy was a given: I was food secure. While I appreciated it, I rarely gave it a second thought.

While living in Pickle Lake, I developed a very strong affinity for the North and rural living. Also, I was introduced to and dependant on the Northern Store for the first time: the limited, expensive, and unpredictable grocery store which had a virtual monopoly on the local food market. The Northern Store was a source of frustration for me while I lived/worked up there: I remember getting excited for rarely seen, $18.00 bunches of asparagus (retailing for $5.00 at Milton's farmers' market); a $36-priced watermelon I would expect to see in Toronto's Kensington Market for $6.00. I was gobsmacked at bags of spoiling, shredded cabbage being sold at full price, which would have already been in the dumpster in a Thunder Bay grocery store. I remember the visceral disappointment of working overtime and rewarding myself with a simple tomato, which were always so mealy.

Nagging memories of the store stuck with me when I would return South/home for the winter, cherishing the access to Toronto's Food Terminal and Asian Markets. The ability to consistently access affordable, acceptable, and healthy food was something I had taken for granted most of my life. This sparked an interest in Northern food issues and lead me to move to Thunder Bay to pursue a Master's degree. Specifically, to pursue the Northern Food research opportunity offered by Dr. Schiff, Dr. Levkoe, and FLEdGE (Food: Locally Embedded, Globally Engaged).[26]. These experiences in Pickle Lake are embossed in my psyche and facilitate a lens through which I observe and author this case study.

Since working in Pickle Lake, I spent some time volunteering on farms in rural Newfoundland, which gave me first-hand experience of growing food and informal food economies in small communities with short growing seasons and limited market food sources. In the past few years at my own home in Thunder Bay, I have built a garden with my housemates and

[26] FLEdGE is a research and knowledge sharing partnership supported by the Social Science and Humanities Research Council of Canada (SSHRC) that aims to study and support sustainable food systems that are socially just, supportive of local economies, ecologically regenerative, and that foster citizen engagement (FLEdGE, 2016).

enjoyed Roots to Harvest's Southside Gardens, slowly learning how to grow food and thoroughly enjoying having access to home-grown vegetables for ourselves and to share with friends.

Outside of my thesis, I have worked with Dr. Schiff as a graduate assistant, exploring food security amongst First Nations reserve residents living with end stage renal disease in Northwestern Ontario. My involvement in this project has allowed me to talk with people about their access to foods and how this exacerbates their diet-related illness. With Dr. Levkoe, I did research on a First Nation community on the North Shore of Lake Superior, looking at the interconnections between land rights, food sovereignty, and fisheries. This exposed me to the complex interactions between Treaty rights and traditional subsistence and commercial activities, and the impacts of environmental dispossession and reclamation.

Over the years, I have learned that food issues go well beyond cost and access; they are embedded in historical, social, economic, political, cultural, environmental and personal contexts and relationships. Of particular note is my understanding of Canada's role in a history of broken treaties, genocide, and government policies which were expressly aimed at elimination or civilization of the Indian, and the destruction and outlawing of traditional methods and ceremonies which incorporated food and harvest.

Throughout this research process, I recognize that I am engaging with Cumberland House and its residents under non-neutral, pre-existing conditions influenced by history and power relations (Scotland, 2012). In conducting this research, I am aware of my status as a privileged, white settler Canadian. In understanding the experiences of a remote Métis and First Nations community in Northern Saskatchewan, I am aware of my inherent status as an outsider. My outward appearance and mannerisms, and with my identity as a Masters student. The word "research", itself, carries a tenuous connotation for some Indigenous populations (Denzin, Lincoln, & Smith, 2008).

My positionality may have affected my interactions with participants, which I recognized when participants were shy, or a planned interview fell through. One day during my stay, there were three no-shows for interviews. I was disappointed, and I spoke about it with a community member I had befriended. She explained that people may have avoided interviews because they were nervous about speaking to a researcher; or speaking in English, if that wasn't their first language; or, simply, speaking with someone they did not know well. They may have wanted to

participate or contribute to this research, but not under the circumstances I presented. I was not providing incentives or honoraria to participants either, which would have possible increased my participation.

In another instance, my positionality was made obvious to me when a participant remarked:

> Wayne: I see southern people coming into this area and that's probably why one of these interviews here is to try and to secure the South for food when California can't grow anymore. So, you know where there's fertile land to come and plant. That's probably why –
>
> I: Well hopefully people don't exploit it. That's not my intention, at all.
>
> Wayne: Our people won't. Our people won't. But somebody else will.

I realize these topics are sensitive and laden with a history of colonization and misinformation. To the best of my ability, I hope to adequately interpret the experiences and information people shared and present them in a respectful manner. By applying community-based research methods and practicing reflexivity, I aimed to overcome inherent power relations and speak to people on a human-to-human basis, rather than as researcher-to-subject (Jacobs, 2008; Martens et al., 2015; Mundel & Chapman, 2010; C. Reading & Reading, 2012; Skinner, Hanning, & Tsuji, 2006). Throughout this research process, I have done my best to mitigate the potential spaces in this research for miscommunication and misinterpretation notwithstanding Wayne's suspicions.

Setting the Case

The information provided in this section discusses some key characteristics about Cumberland House, its history, and its demographics. I will also discuss sources of food in Cumberland House and the role it plays in the community along with the development of the community and market garden initiatives.

Cumberland House

Cumberland House is a village located on Treaty 5 territory (signed 1875), on Pine Island in Northern Saskatchewan.[27] Participants favourably described living in Cumberland House as "the simple, country life" (Wayne) and "slow-paced" (Ellen). Most said they had spent most or all

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[27] Northern Saskatchewan communities are identified by the Saskatchewan Food Costing Task Group as those located farther than 100 km north of Prince Albert (Saskatchewan Food Costing Task Group, 2015).

of their lives living in Cumberland House (there were only three exception to this). Some described leaving at times for post-secondary education or jobs, but would return because "I wanted to be home" (Lukas) or city life made them "lonesome for the bush" (Greta). As Sherry described, "You go away for a year or two to go to school, but, yea, you always come back here".

There are three different sections of Cumberland House: The Village, Cumberland House Cree Nation, and Pemmican Portage (Pemmican Portage is a "satellite community" of Cumberland House. For simplicity, this should be considered as a neighbourhood in Cumberland House village. It is not regarded as separate community, per se - it has no separate amenities – but it is located far from the village center). This study focused on residents of the Village (I was invited by a village council member and did not receive permission from First Nation leadership to do research with people living on the reserve). To the north of the island is Cumberland Lake; and to the south is the Saskatchewan River (see Figure 3.1). It is located at the end of the 123 Highway, the only year-round connection to outside communities. This highway is notorious for its bad conditions and getting frequently flooded. This creates anxiety for personal travels, but also stresses supply lines for both personal and commercial purposes. The nearest full service grocery store, which is where most people buy their groceries from, is three hours away and accessible only by this gravel, rutted road.

Travelling 167 km (or two and half-hours by car, because of road conditions) along this road to the southwest brings you to Nipawin. It is an additional 142 km from Prince Albert, or 267 km from Saskatoon (see Figure 3.2). In the winter, a 100 km ice road connects it to the Pas, Manitoba via the Saskatchewan River. It sits in the Saskatchewan River Delta ("the Delta", as residents call it), which is the largest inland delta in North America, and home to diversity of plants, fish and wildlife (Abu, 2018). It is in the Boreal Plains lowland ecozone (Population Health Unit, 2016) with short, warm summers and long, cold winters. The growing season usually starts between April 30th and May 5th, and ends between October 6th and October 11th.

Figure 3.1: Cumberland House Village, adjacent to Cumberland House First Nation and surrounded by water (Cumberland Lake and the Saskatchewan River)(Google, n.d.).

Figure 3.2: Cumberland House location in Saskatchewan (Google, n.d.).

History

Cumberland House is the oldest established settlement in Saskatchewan and the first western inland post of the Hudson Bay Company (HBC) – the fur trading corporation responsible for settler communities being constructed immediately adjacent to Indigenous communities - built by Samuel Hearne in 1774 (Canadian Encyclopedia, 2008). Swampy Cree people inhabited this part of Saskatchewan River Delta from time immemorial (Goulet, 2013). The Cree would harvest moose, beaver and muskrat for food and, post-arrival of the HBC, pelts to be exchanged for European trade goods (and disease)[28]. The Saskatchewan River provided an essential trade route across Canada, before and after the establishment of the Hudson Bay Company (this was described during my interview with Brian, as well as in the literature, i.e. Andrews, 2015). The HBC moved inland from Hudson Bay to keep up with the independent Montreal traders who would eventually build Fort William and operate via the inland trading post at Cumberland House.

Cumberland House became an important site for the HBC fur trade logistics further inland. As it became a supply center, Métissage progressed and shaped the population (Goulet, 2013). The centralization of logistics incentivized many traditional trappers who had been avid fur traders to shift their primary economic focus to supplying provisions to forts and posts further inland (Daschuk, 2013).

The first gardens recorded by Western historians were agricultural developments introduced to feed the corporation: a garden was built in the Cumberland House settlement in 1786, which the HBC expanded to a farm and saw the beginning of grain and livestock production starting in 1818. Agricultural activities fluctuated through population expansion and decline over the decades; but cereal and fodder production and cattle rearing at Cumberland Farm operated somewhat consistently until the late 1900's. I regret not having the ability to more appropriately draw on the Golden Girls' (the Kookems I interviewed) traditional knowledge of food procurement before the HBC.

Into the 1870's the fur trade declined; the new Dominion of Canada acquired title to the land colonized or exploited by the HBC (Eccles & Foster, 2013). In 1875, Cumberland House First Nation signed Treaty 5 and was relocated to Pinebluff Reserve; and then relocated again in 1960 to the current location of Cumberland House Cree Nation 20 next to the village of Cumberland

[28] Smallpox was brought by Europeans and this disease killed half of the population in 1781 (Daschuk, 2013).

House (Abu, 2018). Following the Red River Rebellion in 1870, Cumberland House had seen an increase in its Métis population as people from Manitoba moved into this area. In 1966, the first all-weather road to the village was built with ferry service to reach the island; and in 1996, a bridge was built to connect Pine Island (i.e. the community) to the mainland, which replaced the ferry.

Demographics

This research solely focused on the village (with the exception of some participants residing in Pemmican Portage), so I will only include Village demographic information. Cumberland House village statistics from 2016 indicate the population is 671 (a decrease from 831 in 2011), the median age of the population is 25.7 (average age = 30.0), and 96% of the population identifies as Aboriginal (Statistics Canada, 2017). 2016 census data lists the average income as $29 347, and the unemployment rate is 25.0% (Statistics Canada, 2017). Meanwhile the median income in Canada for the same year was $57,000 and the national unemployment rate was 6.9% (Statistics Canada, 2018). Economic impacts of shuttered industry are obvious. One participant described that a government-run sawmill used to employ many people but shut down, putting many people out of work. He went on to describe the psychological impacts of job losses and introduction of welfare he witnessed since then:

> Back in the day, when I was growing up, they had a saw mill over here. […] The guys that I grew up with worked there. They quit school, went to work there. And man, alive, when the pay day came, everybody was loud and proud, having a good time. They earned their money. Paid their bills. Bought their food. And they drank the rest. That's the way of life in a small town. Now, what I'm seeing, guys that I grew up with, you barely see them, hear them say a peep. […] All they have is social assistance once a month. (David)

Another described the social stratification that he witnesses and experiences as a result of few well-paying jobs being available in the community:

> I don't care what anybody says, there are two different types of people in Cumberland. There's the low income people, and then there's the people that work at the school and have jobs. […] It's that they look at us differently. […] They say […] Cumberland people are lazy. And they, the reason why they're lazy is because they're tired of applying for jobs and they never get picked. […] [We get labelled] welfare bums, bootleggers, drug dealers. (Brian)

Job opportunities – as in many northern, remote communities – mostly lie in education (the village has a K-12 school, Charlebois Community school), public administration, health care and social assistance, food services, and remote jobs such as mining outside of town and fire suppression (Statistics Canada, 2017 and personal communications). Some people I spoke to also do seasonal land-based work, including guiding and outfitting and commercial fishing.

Food in Cumberland House

In Cumberland House, food comes from a combination of commercial, gardened, and land-based traditional sources. Food is integral to community events. Important insights were revealed in interviews about hunting and fishing, and they will also be briefly discussed here.

Market sources: In terms of purchasable food (not including the Market Garden), there is one grocery store (the Northern Store) and two fast-food restaurants (CJ's and Mum's; diner-style pizza, burgers, and ice cream). Mum's also has a small grocery section. Coming into town, there is also a gas station/convenience store called Chief's Island which sells mostly confectionary snacks and limited groceries.

Most participants said they purchased food a two-and-a-half hour drive away in Nipawin at the IGA or The Co-op, which has a wider selection and cheaper prices than the outlets in town. To get to Nipawin, people drive, catch rides with friends or family members, or in some cases look to the Cumberland House Buy and Sell Facebook page to share or buy a ride. Some community members also do home sales and make ready-made meals or baked goods. These are sold by word of mouth, posters, or on the Facebook group.

Gardens (Personal): Interviewees reported gardening used to be a very common subsistence activity; but only some people maintain personal gardens today. From what I saw, most of the people who have personal gardens live in Pemmican Portage along the river, rather than in town.

Land-based foods: "Living off the land" (Wayne) is still practiced through fishing, hunting, and harvesting traditional foods. Participants listed the following plants and animals that were provided by the land: walleye, sturgeon, duck, goose, elk, moose, chaga, berries, maple syrup, birch syrup, wild rhubarb, and various medicines. These types of foods made participants "feel

better… it's a part of where we live. Because we are surrounded by all these animals, you know" (Harriet).

Some participants said they fished or hunted themselves; and these foods are also shared among friends and family who do not have a hunter or fisher to harvest for them. After one interview, I was given a large chunk of moose meat. In turn, I used the meat to make a stew (with some advice from my hosts and some vegetables from the Community Garden) and shared this with my hosts over a Thanksgiving dinner. This participatory role in Cumberland House food systems made me feel a part of it, albeit in a limited way.

Some participants did these activities commercially. For instance, Albert is a commercial fisherman; James used to have a maple syrup business and currently harvests wild rice which he sells to stores in La Ronge (a community in Northern Saskatchewan); Wayne runs an outfitting camp that draws American tourists; and someone I met in the community garden explained he was a moose hunting guide in a nearby town during the weekdays. One participant (cautiously) explained that she bought wild foods from a local hunter, since she did not hunt herself.[29]

Although it is still practiced, waning hunting, fishing, and foraging practices in recent times was a point of conversation in the interviews. Participants described that younger generations did not do these activities often, or did not have hunters in their families to learn from. This is not likely a coincidence, but a legacy of residential schools, intergenerational trauma, and resultant social, economic, and health impacts.

The extent of this was illustrated at the duck soup event I attended. Here, 8 ducks were donated by a local hunter and a grade seven student, Clay, taught his peers how to prepare the meal in the back field of the school. Clay's grandmother, Greta, works at Charlebois school as the Cree language coach (e.g., creates resources for teachers to teach Cree) and arranges this teaching opportunity yearly with Clay's teachers.[30] In her family, fishing and hunting is still practiced and

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[29] This is evidence of the impact of settler colonialism. The government has literally (still!) outlawed the trading of traditionally harvested meat via Safe Food for Canadians Regulations (Government of Canada, 2021).

[30] On her own time and during after-school hours, she also teaches students how to bead, sew, and "survive in the bush" (i.e. start a fire, boil tea).

taught, and she explained the importance of allowing her grandson to share this knowledge and experience with his peers who might not do these activities regularly with their own families:

> I teach kids how to prepare duck, my grandson helps me, [Clay], the hunter. He actually teaches how to pluck the duck, how to cut it and everything, and how to prepare it for a meal. Then we made a soup and bannock outside there […] Yea, he shared that. […] They were taught last year by him and so hopefully they remember. Let's see how much they remember from last year. And I'm not sure if they do that at home. […] Yes, it's very important, because well it's their life, it's their culture, it's their tradition, eh? You gotta know these things. You never know, you might have to survive back off to the land, the way things are going. (Greta)

Most of the students at this meal said they had not done this activity since the last time Clay taught his class, and had to be retaught. They said this was not an activity they do often with their own families. I noticed two students confidently grabbed ducks and began plucking (one of these two had also brought her grandmother's bannock to the meal and was able to describe the different types of feathers on the neck, wings, and body, implying she might have more regular experience preparing traditional foods).

Some of these changes in adherence to cultural practices are occurring concurrently with changing wildlife populations in the Delta as a result of the E.B. Campbell dam, which has disrupted the flow of the Saskatchewan River. Built in the 60's, this dam has altered water levels and with it, wildlife populations; which has impacted ways people can interact with the land they have traditionally lived off of. Wayne runs an outfitting camp and has been working with researchers from the University of Saskatchewan, Illinois, and Guelph to study the effects of the dam. He describes the land as being "in jeopardy":

> I understand our people lived off this Delta for hundreds of years. And of course, it's something that I cherish. And of course, I see the wildlife in this area has done a lot for us and I know it's in jeopardy now. Because of man putting structures on the river system. And it's altered the whole system and it's impacting the wildlife here today. (Wayne)

Outside of interviews, a resident described to me that changing water levels were making some waterways too shallow to take boats out for fishing, and keeping others from freezing fully in the winter to drive skidoos over for ice fishing.

Another participant described the changes her husband, a trapper, has seen as he has grown up interacting with the land. She explained how "plug[ing] up" the river has made the water questionable for consumption, for people and moose:

> My husband has been in the bush all his life, he grew up in the bush, and he sees the changes that we have, compared to what he had grown up with. […] And you kind of worry, okay, what's in the water? […] Like the moose, what do they eat? […] The water is, it does not flow anymore. Because they […] plugged the whole system up. […] We used to just get the water from the river. Make our tea. We used to paddle, scoop up water, and drink it. You can't do that anymore. So, see, same thing with the moose, they're drinking that crap. (Ellen)

In lieu of the dam, Greta (who led the duck soup cooking lesson, and goes hunting and ice fishing every season) cited that imposing bans on burns was also negatively impacting the health of the Delta and pushing wildlife out of the area; plus, requiring licenses for trapping added another "hassle":

> There's no more moose. They're going away. I don't think they like our delta. I think our delta is rotting. Not enough fresh water. And they don't allow the people to burn now because years ago they used to burn [the grass] to allow fresh growth to come up. Now that dead stuff is just piling up and piling up. And that's what makes the water rot. That's what I believe. […] You need permission to do everything. You have to have permission to trap, you have to have paper to trap, you have to have a paper to build a cabin. This is our country. This is our land, you know. It's very hard. […] It's so much hassle. (Greta)

As mentioned before, these hunting, fishing, and foraging activities still provide an important source of food for residents; but, as Greta states, "[i]t's very hard" to maintain them with the changes that have incurred over the years, mostly from external forces.

Community food events: Food plays a special role in community events in Cumberland House. Every May, Culture Week is hosted at the school, where the community comes together to celebrate and showcase traditional food skills. Local hunters and fishermen donate ducks, elk, moose, and fish and the community gathers to prepare the food and share meals together. As one participant explained, "It's about Cumberland and their culture and what they survived on, that's the wild food and all that kind. How to prepare it and all that. Cook it. […] They have people to show them how to clean ducks, cook 'em. Fish" (Dan).

Community feasts are very common for gatherings, such as funerals and weddings. The occasions are open to the entire community and people will contribute food or offer to cook as a sign of support, "When things happen, we help each other out, for anything. Weddings, funerals [...] It's the togetherness about Cumberland House that I like" (Harriet). Even after a football game at the school, the Charlebois teachers cooked a meal for the Home and Away team to share. The teachers said they do this after every game to teach sportsmanship and build camaraderie between the teams. In Cumberland House, food and the sharing of it is the essence of the community.

Figure 2.3: A indicates location of Community Garden, B indicates location of Market Garden (Google, n.d.).

Community Garden

A Community Garden started in 2010 by village residents. It is located approximately 4.0 km south from the center of the village, to the right of Highway-123 driving into Cumberland (see

Figure 3.3; Point A). This garden had simple beginnings: a community member (Colin)'s own property was shaded and hard to grow food on, and he noticed the land behind his house had great soil and got more sun. He asked the family cutting hay on the land (which is village owned) if he could grow there, and also cleared space for friends and families to grow, too. This eventually turned into the community garden; a "build it and they'll come" type of establishment (Colin).

Participants also described that community gardens had existed in Cumberland House before this one. Brian said that he had memories of working with his grandfather in a small communal garden in the 1960's. At some point people stopped growing together, and he saw the opportunity to start that up again on a larger scale:

> I used to remember helping my grandfather at the community gardens because community gardens were behind that Catholic Church, where that convent was. […] [W]hat's stopping us from community gardens? […] There were six of us that started gardening in the community gardens. And the first year there was only six. But every year it doubled. For the past five years. […] And the main purpose of that was to get families involved. To go out and weed the garden, fresh air, exercise, and also have food. (Brian)

Plots are provided for free to community members who want to grow food, and Colin tills the CG at the start of every season. There are a few rules that participants need to follow: no selling food, no fertilizers, and (typically) you keep your same plot year to year. Brian and Colin, the two coordinators, do not keep records of membership; but they estimated 32 families had plots in 2016, and 18 families participated in 2017. It is a large area, with five long rows (four are quite full, one is mostly empty) that people can stake a portion of. Each row of plots is approximately 100 m long and 15 m wide. From what I saw, most plots are dedicated to growing potatoes. Some fruit trees grow there, too, planted by Charlebois School. A small number of plots show more diversity: for example, one plot had celery, pumpkins, lettuce, tomatoes, zucchini, cabbage, broccoli, and potatoes; another had turnips, carrots, corn, onions, squash, beets, and potatoes.

The CG's charm is in its origin story: a community-driven and -created project. Due to its dynamic membership and informal origins, those "rules" are hardly laws. When they were addressed, there was no mention of (or apparent need for) enforcement or arbiters. "Coordinators" are not hired or compensated by any government or institutions. While I may lament their lack of record-keeping, this is truly a community derived project that understandably did not come with a registrar or secretary.

Market Garden

The Market Garden is a project run by Cumberland House mayor and council that grows and sells fruits and vegetables. It was implemented in 2014. The garden is the same distance from the village center as the Community Garden; it is across the Highway from it (see Figure 3.3). During harvest season, the produce is brought from the gardens into Cumberland House and sold from the Cumberland House administration building (located in the center of the village) multiple times throughout the week (varies per week). People are notified on selling days by radio announcements and a sign is put out front.

The 2012 to 2016 Village Council started this project. They saw a need for more fruits, vegetables, and jobs in the community. The MG can be seen as complementary project to the community garden, but its goals are more socio-economic than expressly food-driven. It is about making a business case for job-creation and economic impact, returning Cumberland House to its status as the breadbasket of the interior with the hope to supply food for the communities linked to them by rutted roads and rivers.

They partnered with Murray Gray, a gardener who had been working with Ile-a-la-Crosse to establish a market garden there (he has also been working with Beauval, Fond du Lac, La Loche, Buffalo Narrows, and Stoney Rapids). The mission statement from the original business plan reads:

> We are a Fruit and Vegetable farm that produces fresh fruits and vegetables from the Indigenous land of Northern Saskatchewan. We are a community led organization that promotes skill growth and entrepreneurship. We believe in a healthy lifestyle that starts from having nourishment from the land.

Amy, a former village council member, and one of the original coordinators, explained how she was inspired by what she saw at the CG, and wanted to expand on it:

> You know, you feel good when you grow something. You feel good when you're providing food for your family. Because you did it yourself. […] That was the concept behind community gardens. I wanted […] community development. I've seen those 5 or 6 families feeling good about it, and you know, feeling confident when they achieve something, I thought, hm, imagine other community members feeling like this. Imagine other families feeling like this. So that's where that other garden came on. And Murray came in the picture […] I was in that mindset, you're darn right. Let's do

> it. Let's show the community. Because, and at that time, I knew there was a big cry out there for Northern communities in poverty, and the food prices were so high. (Amy)

The MG has five high tunnels[31] and one large, open plot. This year, three high tunnels were used, and they grew (or attempted) cantaloupe, tomatoes, dill, cucumbers, red cabbage, strawberries, zucchini, onions, and beans.

In the field, they grew white potatoes, turnips, red potatoes, carrots, corn, and beets (and asparagus, but it is in its second year of growing and not harvestable yet). This year, they sold white and red potatoes, turnips, carrots, corn, beets, cucumbers, cabbage, and zucchini. In the previous year, all five tunnels were used and in addition to the food listed above, lettuce, celery, peppers, and raspberries were grown.

This year, workers were hired in May to begin planting; and selling began in August. The garden employed three full-time employees and one-part time manager. There is interest in using the MG to sell food to nearby communities on a commercial basis, which has yet to fully be implemented; though in previous years, they have participated in farmers' markets in Nipawin. The MG also benefits from staff and infrastructure. With those benefits, however, come larger concerns for continuity; particularly, perennial political and financial support from leadership.

Conclusion

This study provides a point-in-time snapshot of the community and its gardens in a remote, rural community managed mostly by Indigenous folks, uniquely outside of the Indian Act of reserve system. This community-based study of Cumberland House may not provide findings that can be extrapolated to other locations; but it does provide an in-depth temporal account of how community-initiated gardens have been taken up by and impacted a community.

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[31] More specifically, "High tunnels offer plants protection from wet, saturated soils and low temperatures in the spring and fall, thereby extending the gardening season. This can translate into earlier maturing fruits and vegetables…. High tunnels are structures generally constructed of a metal frame covered with a single layer of 6-mil greenhouse-grade plastic… High tunnels differ from greenhouses in that plants typically are grown directly in the ground instead of in pots and they do not have permanent heating or automated ventilation systems" (Penn State College of Agricultural Sciences, n.d.).

Cumberland House is an original settlement in the interior of Canada by the Hudson's Bay Company. Colonialism centered on the fur trade led to Cumberland Houses' second economic and social transformations, moving Cumberland House's economy to a support and logistics center for other interior trading posts. Eventually, shifting to an economy based on government infrastructure – that is, sawmills and the dam. The sawmill has since shut down without an industry to replace it. Now, Cumberland House-ers are either employed by the town or school, unemployed, retired, or on SAID.

Nonetheless, the community is vibrant in food culture. Community feasts are an integral part, spurred without leadership or sponsors, and come about as organically as the community garden. Folks contribute what they can and take what they need. That food, however, comes at a significant expense from the Northern Store in town, or the conventional grocery store three hours away.

The CG, created by the community members out of the desire to get together and try something, is loosely organized and reliant on the network of community members. The MG, borne out of the desire to improve access to food and – more importantly – economic development for locals was a political response to economic and social realities.

This entire context and background for my review is illustrative of the impacts of Canada's legacy of genocide: the traditional knowledge of foods and medicine, and the harvesting of fish and meats has not manifested widely in the youth of the community; fewer folks are on the land than they were in previous generations. While sharing of country meats is reported in interviews, government policy to this day outlaws selling such meats and fish that was not harvested with specific licenses nor processed at federally regulated facilities that adhere to federally or provincially mandated safety standards (Government of Canada, 2021).

Qualitative research provides a point-in-time view of the Cumberland House community and its food access, as well as their attempts at localized agriculture in a northern community with a limited growing season. While my point of view and identity has certainly impacted my observations and my access to interviews, comparing my findings to my literature review shows that my qualitative research matches those more generalized observations arising from the academy.

With this better understanding of my methods and the setting of the case study, the next two chapters will discuss the findings from my research. Chapter Four will discuss the reasons why the gardens exist; and Chapter Five will discuss primary outputs and benefits, as well as address the tensions and limitations that are faced in providing these outputs.

CHAPTER FOUR

Findings Part One: Opportunity, Motivation, and Need

The Market and Community Gardens are products of a combination of factors: some a matter of circumstance, others a matter of initiative. This chapter will discuss my findings that illustrate why the MG and CG have been initiated. While the MG has – at the time of data collection – only existed for five years and the CG for eight, the circumstances that encouraged their implementations were present well before that. Guided by the findings from my research, this chapter will discuss the primary opportunities, motivations, and needs expressed by participants that provide insight into the respective gardens' origins.

I start by discussing land as an opportunity and Cumberland House's geographic positioning. Next, I discuss Cumberland House's history of farming and subsistence/self-provision food practices as a key motivation for the gardens. Then, I discuss the economic need for the garden; namely, a secure source of affordable, fresh, healthy and trustworthy food. Cumberland House residents enjoy the ways gardening can provide them health and work ethic. And the fragility of the food system is pushing folks to rediscover their agricultural heritage. Through a presentation of the opportunity, motivation and need, this chapter describes the resources, histories, and needs specific to this context that were recognized and acted upon by the community and resulted in the implementation of the community and market garden.

These initiatives are actively employing unique community assets and represent community members' concerns about their own well-being. These gardens are a manifestation of a need and concern for food, and signal that the status quo food system needs to be improved.

Opportunity: Land is abundant, arable, and available

"[A]ll we have is land here"

The abundance and availability of arable land surrounding the village presents an opportunity for growing food, which is a key reason for the Gardens' existence. In nine of the 18 interviews, participants mentioned land and described it as plentiful and/or available - and no one described land as scarce or limited. Brian, one of the initiators of the community garden, described land as Cumberland House's greatest resource, "All that land belongs to Cumberland House. All

that land. That's all we have is land here. We can utilize that land, you know?". A prime "utilization" for this land is food production; and other participants described how "all that land" holds great potential for growing food. Of note, Lukas' response was tinged with frustration as he described the amount of land in Cumberland House that was *not* being used for growing food:

> I think [the MG] could be more… With all the land that we own from our settlement [from the dam's impact] that's not being utilized… I don't know how many hectares we have out about 50 km from here. There's a big farm field out there not being utilized. And that island back there, Farm Island, that's not being utilized. And all of this open fields there, not all of it is being utilized… It's not being utilized. It's crazy. I don't know why. (Lukas)

As such, many viewed the land as abundant, available, and accessible resource that could produce a lot of food.

While describing the *quantity* of land available, most participants described the *quality* of land with enthusiasm. Thirteen of eighteen interviews included positive descriptions of the soil, using words like "fertile", "lovely", and "rich". The fertility is in part due to the Saskatchewan River Delta, an alluvial river system which has deposited nutrient-rich sediments on the land (especially in old floodplains) and supports a diverse population of plant, fish, and wildlife species (Irland, 2017; Razak, 2017; personal communication with participants). The Delta contributes two key components for growing food: healthy soil and water. The market garden is located on what used to be Goose Lake, and the community garden is very close to the Saskatchewan River banks; both are sites with "prime soil" (Sherry).

One of the original instigators of the MG described the land's great potential:

> Because there's lots of land, lots of land in Cumberland that we could grow on. Lots. You haven't seen half of it. […] All prime soil and just grass growing there…. Big big big potential... [W]hen you out in one of those fields, the grass is growing seven feet tall. That tells you it's fertile soil. There's no, nothing added onto that. No fertilizer or anything. Nothing. Nothing. No garbage put on there. Lots of potential. (Wayne)

This enormous availability of land, and that the land is extremely fertile and arable, makes it ripe for gardening.

Little input is required for the land where the MG and CG are located. All you have to do is "rip it up [i.e. till it]… and use it" (Grant, market gardener); and you can "rotor tiller the whole [Community Garden] and it won't hit a rock" (Colin). One participant framed it as the land

cooperated with gardeners, almost as a form of communication, "[T]he garden told us that we could do a lot more. The soil told us we could do a lot more than we had planned" (Wayne).

Similarly, a participant pointed to a carrot he had picked from his community garden plot as reference to the soil quality by the river, in the community garden: "I think the soil back on the hill here, is as good as you're going to get anywhere. And I have a witness here for that [points to carrot] that it just does well" (Colin; Figure 4.1). That is, the community's aspiration to plant food seems to be met by a desire of the land to produce.

Figure 4.3: The bounty: A monstrous carrot picked from the community garden

A few participants voiced dissatisfaction with growing conditions in Cumberland House. One participant complained that the ground at the MG was "hard" (Isaac), and three disclosed frustrations with the clay beneath the topsoil (Greta in her personal garden; Grant and Brian in the MG).

Indeed, in the market garden tunnels, I personally saw the ground was heavy and cracked, which wreaked havoc on the root systems of the strawberry and raspberry plants and caused most of them to fail in the 2016 season (Figure 4.2). As well, when I helped harvest potatoes at the market garden, some sections of the field were heavy with clay and were home to thistly weeds, which made harvesting difficult and hard on the hands. That said, the ground circumstances were

attributed to a wetter-than-usual spring; that is, the past year's weather, rather than the properties of the soil, was problematic. This is "just natural": "Sometimes it [the land] won't grow one vegetable the next year as well as it did before and so on and so forth, but I guess that's just natural" (Greta; tends a personal garden).

In the residential area of the village, the land is "rocky and […] it takes all the fun out of gardening" (Colin) or full of "gravel… no good ground [t]here" (Cassie). While the core of the village lacked productive land for gardening on their own property, the ample and bountiful land surrounding the village provides prime space for the Community and Market Gardens.

Figure 4.4: The cracked and weedy ground in a market garden tunnel

Motivation: History of farming and gardening as culture

"People in Cumberland House years ago were all gardeners, at one time"

Cumberland House residents are motivated to use the land surrounding them for food production. Part of this can be attributed to their area's strong history of food cultivation. As an important trading post and supply hub for the Hudson Bay Company, farms were introduced by British traders to increase their food supplies, and government-run farms operated until 1989. Although the cereals and livestock grown on the farms were not integral to the food supply of the

Indigenous populations living in the area, personal gardens were. Participants recounted how personal gardens were essential proponents of their subsistence lifestyles; but have since declined in usage with the introduction of imported market foods. Participants described that this decline has been detrimental, and returning to old subsistence patterns is expected to bring benefits to the well-being of the community.

Farms

Open spaces of land may be regarded as opportunities for growing food because farming and gardening have played a strong role in Cumberland House's history. They carry the memories of the recent and not-so-recent past. For example, one participant described how empty fields are places where farms used to exist, "We don't have farmers using this land anymore. That's what it was used to be used for, was farmland, for cows and horses and stuff like that. But we don't have no more cow farmers and stuff like that" (Brian).

Agricultural operations were implemented in Cumberland House soon after the Hudson's Bay Company established the settlement in 1774 as a logistics center for the rest of the HBC's operations further inland. Livestock and cereal production were established by the HBC, and then later ran by provincial government bodies, with plots leased to residents of the village. In 1989, the farm projects were abandoned by the government and land title was granted to Cumberland House as part of a $20 million settlement package from SaskPower for environmental damage caused by the E.B. Campbell Dam (Colin). Beyond the gardens, farming operations are essentially non-existent now.

Memories of livestock farms were heavily referenced by participants in the interviews. Many people recalled fields of cows in the village; though, there was confusion among community members as to who was fed by that meat, and what caused the farms to vanish. Harriet described it as follows:

> We did have the farm island like I told you about. And we did have animals there. But that shut down. […] I don't even know why it shut down. [Now], the only [farmer] I know is my neighbor here, but he just quit, after the last flood [in 2013]. […] Yea. That was the last actual up and running farm left. Because there was […] six at one time. Then there was one. And now there's none. Except for the one that brought in his cows here to roam. I don't know who that is though. (Harriet)

When I asked further about her neighbor, and whether anyone in town ate the meat that he raised, she said people in the village do not get meat from him, and she “never understood that” (Harriet).

Delene, who came to Cumberland House in the 1940’s, said her husband had been a trapper, but then “the government gave him some land to farm”. On this land, he raised cows. She and her granddaughter (Sherry) described that the farm was an economic venture to feed outside markets and build capital assets for further agriculture, rather than a subsistence activity that fed themselves or their community:

> Delene: Yea we had cows, and some pigs and chickens, but they’re all gone. He had lots of cows. […] My home, they didn’t like to eat the cows. [My husband] didn’t like to kill the cow to eat. […] He would sell the cows in the fall, October, to [Price Albert].
>
> […]
>
> Sherry: And then you would buy machines and stuff with that money?
>
> Delene: Machine. Buy some machine to use for hay.
>
> Sherry: Assets, eh. Build up assets.

Only one participant recounted eating beef that was grown in Cumberland House:

> I remember my father and them butchering a cow. And they didn’t waste nothing. I remember them making blood sausage in a big tub. And using the guts to stuff the blood into the intestine. I miss that. It’s delicious. I bought some from the co-op one time, and [it was] not near [the same]. Not near. (Greta)

Farming and livestock production is almost absent from Cumberland House now. However, the notion that the land can be used for farming has prevailed; and this time around, it could feed the community, as indicated by the following comments:

> I’d like to see beef being processed right here. I don’t see why we can’t do it. Farmers do it all the time. (Greta)

> Let’s do it here! Let’s get cows. Buy cows. And that’s the idea. We have one farmer here, let’s start dairy farming. Let’s do our meat cutting. That’s why I said we have a lot of resources here. (Brian)

While this concept of raising livestock for *community* consumption is something new. Cumberland House is no stranger to raising livestock. Subsistence gardening has been present in Cumberland House for generations. Traditional land-based activities have also significantly contributed to the

identity and diets; whether it is hunted by a family member, or traded or shared between families or individuals, meat caught on the land is a staple of most diets.

Gardens

Traditional subsistence activities such as gardening, hunting, foraging, and fishing have a more personal, familial role in the history of Cumberland House's Métis and First Nations residents, compared to raising livestock. 18 of the 26 participants mentioned a parent or grandparent who exposed them to gardening throughout their childhood (of the remaining eight, four gardened presently but never mentioned who they learned from).

Greta, an Elder, explained, "We always gardened. People in Cumberland House years ago were all gardeners, at one time…The First Nations, Plains Indians, they're the ones that introduced vegetables to the Europeans". Later, she continued, "I think it's, like we've been always herb eaters and vegetable eaters and wild food eaters, 'til the Europeans came, and I think that all shot our systems down. We had to adjust to their food".

Delene supported this account that most people in Cumberland House were capable of growing/providing food for themselves, but she described it in terms of survival and necessity. When she arrived in Cumberland House at the age of fourteen on horseback from Manitoba, there was no electricity, no houses, and "that Hudson Bay store was far away, over there, not here". And so, gardening, hunting, and fishing was necessary for survival, especially since she had eleven children and a husband to feed. She explained:

> [We] had a garden, and just like in the fall they get moose. Yea, they'll get some meat there, eh. Fish. […] [S]ome of the people would smoke the meat so it won't spoil right away. […] We had a hard time. […] Even the water, we drink, it's just muddy water. Just grey. […] I was a strong lady, eh? (Delene)

One of the Kookems living at the Old Folk's home, Cassie (also a "Golden Girl"), had a similar account of surviving off self-provisions, "We used to have a garden. […] I think about the past, what we used to have, what we used to do. We used to can stuff. We used to can everything" – everything being blueberries, raspberries, maple syrup, moose meat, and fish acquired from the land; and the reason for this was there was no power, only cellars, for storing food through the winter. At that time, "[e]verybody used to have a garden" (Cassie) on the remote island of

Cumberland House, and the land provided sustenance. Whereas now, store-bought food is the predominant source of most residents' calories.

While chores were undoubtedly hard work, these women described their gardening activities nostalgically and with pride. Two of the three said they were now too old to handle the physical demands of gardening. Greta still maintains her garden, but her personal access to wild game has been compromised since her husband was diagnosed with diabetes; and more generally, the biodiversity and health of the Delta (the source of traditional foods) has been negatively affected by the E.B. Campbell dam built in 1963. All three spoke disappointedly of how few people retained these skills of self-sustenance over the next generations (growing, harvesting, and preserving),[32] and pointed to laziness as a culprit. Moreover, this "laziness" could be cured if it were replaced with a desire to garden; again, pointing to reasons why these gardens would benefit the community. In this sense, "gardener" is a culturally significant identity that is associated with being a provider, and having strength. Older generations saw revisiting gardening would provide the younger generation with otherwise lost skills and help them develop a stronger work ethic.

Counter to this "lazy" argument, though, younger generations described that while they had *worked* in their grand/parent's gardens (usually involuntarily; see below), they were not taught *how* to garden. For example, David did not know how to garden until he started his own last year because he was only involved in weeding as a child, "[I didn't know] a whole lot about gardening. Not a whole lot. I know how to clean. That was my only job".

Whether or not this newer generation is lazier, they definitely live in a different time than their predecessors. Modernization and introduction of new amenities made gardening less necessary for survival and thus less prevalent. Highway-123, built in 1966, connected Cumberland House to southern Saskatchewan and was paved the way (literally and figuratively) to new lifestyles:

> My wife talks about life before the road. They put that road in sometime in the 60's. […] Because after the road came in, social services came in, and [my wife] says they went door to door. Oh, you qualify to get this check every month. And then, oh you

[32] Of note, these women do their part in keeping these teachings alive. Cassie's daughter maintains a garden and cans food, which she learned during her upbringing; Delene's son now works in the market garden and maintains his own personal garden; and Greta teaches students at Charlebois School how to make traditional duck soup once a year (and beading, sewing, and wilderness survival skills, too).

> don't have to do this that and the other. Go to the store and buy it. And so a lot of people abandoned the gardening. (Colin, married into Cumberland House)

> Well my grandfather had a garden in the backyard. He had potatoes, he had carrots, and beets. I remember all that because I was part of it when I was picking out […] the vegetables. […] I remember there were gardens all over the place, back in the day. What happened? I don't know. […] But maybe technology has just taken over, I think, there was more stores, fast foods stores opening up. [.… Eventually my grandfather got older, no body picked that up to continue the gardening in our home. (Amy)

The need for gardening knowledge and preservation skills to survive has been circumvented with the introduction of electricity, roads, a Northern Store, cars, wage labour/welfare, and access to outside markets/communities. And for some, time and energy that was once devoted to subsistence activities have been redirected to jobs; three participants (Ellen, Sherry, and Lukas) who hold full-time jobs explained they were too busy to garden, but might try it when they retired. This intergenerational knowledge transfer of subsistence gardening and living off the land was no doubt a victim of Residential Schools and Canada's attempt to eliminate Indigenous languages, knowledge, and cultures. And so, the need to preserve, revisit, and reinvest in these skills is very valued.

The interviewees claimed that cultivating gardens contribute building to a strong, self-sufficient community; even by those who resented gardening as children. Gardens allowed for families to have access to fresh vegetables; and maintaining these gardens was hard, but necessary work that required familial effort:

> You know, seven-year-old me, I used to eat vegetables, crying. I didn't realize how blessed I was. That I could just go outside into the garden and pick them, get them. I'd give anything to have that again. (Samantha; had access to parent's garden as a child, currently does not garden)

> Nobody looked forward to it, I didn't as a kid, I didn't look forward to going to the garden. But [...] we had to [...]. We were just kids there. But it was important that we had to help out to survive the rest of the winter. [...] I was proud to be part of it. But I never, never enjoyed going out there. But when it was harvest time, I was happy to be out there to harvest. Because your reward was there. Yea, you felt it inside. [...] Proud of your results, eh? (Wayne)

David, who as mentioned above has recently started his own personal garden, also described harvesting with exuberance, as well as the "moaning" and "groaning" that precedes that

moment of joy. He describes the struggle, but also the rewards – good food, pride, and building character – that come with reintroducing the practice:

> [Buying food] is so much easier to do. […] That garden I have there, I moaned and groaned and complained, and all summer long nobody helping me clean that thing. My [kids and] grandkids […] don't like the work. […] [Then during harvest time, my son] and my son-in-law are digging spuds. And man alive, how can I explain it? It was so much fun harvesting those potatoes and seeing, oh look at this! […] It does something to a person. I felt so proud of it, producing that potato […] sharing it with my kids and my son in law, it was like, right on! (David)

Gardens have played a strong role in Cumberland House's history, and are part of the community's identity. Though they may be less present today, the products of agricultural labour – not only fresh food, but that lifestyle – is once again being pursued as an alternative, "[P]eople are remembering how they lived. And maybe they want to go back and live like that again? They're finding out that it's more healthier. Food wise and health wise, body wise, you know." (Greta).

Revitalizing gardening skills and knowledge has the potential to reconnect people with their food and the land, and with the lifestyle and culture of their predecessors – "[We need to] start teaching and educating our people, getting them back to berry picking and hunting. And also, gardening. Those are the three necessities we used to do" (Brian). The gardens represent a return to subsistence agriculture, albeit in a different context and format, in time for the Kookems – the keepers of the memories of Cumberland House as a breadbasket community – to see it return.

Need: Freeing a "captive market"

"The things you really want and need they don't provide"

Participants described a need to free Cumberland House's "captive market", referring to the community's dependence on market foods and forced submission to the prices and selections set by the stores. This concept came from an interview with Colin, in which he described (emphasis added):

> I hear lots of people complain about the cost of stuff in the local stores. And I know milk is outrageous. It's twice as much out here as it is in Nipawin. And why milk would be that much different is not clear to me. But things are expensive here. For people who don't have transportation of their own out, *they're almost a captive market here*. (Colin)

He continued, explaining how even if you had a car to do a "grub run" (as David referred to out-of-town grocery trips), which could allow you to make the drive to Nipawin where cheaper food was available, the full economic advantage of lower prices might be nullified by additional costs of travel and logistics between Cumberland House and Nipawin:

> One of the previous Northern store managers had a big bulletin hanging from the ceiling, with a list of grocery items and the price in Cumberland House and the cost of those same items in Nipawin. And he added it up. And definitely they were cheaper in Nipawin. And then he puts on the item there, one vehicle trip to Nipawin and back. And it was cheaper to buy it at the Northern store. And I agree with that.

While only Colin articulated this "captive market" term, the other interviewees expressed a similar sentiment. Whether one has access to outside markets or not, high prices and perishability of non-processed food (e.g., whether it perishes en route to Cumberland House in the Northern Store's freight, in an individual's car driving back from the grub run) at the stores presents Cumberland House residents with unique challenges and limitations on accessing food, which impacts their well-being. Even if the food can survive transport to the consumer, the store foods are supplied through a fragile food system that survives at the whim of weather and road conditions, in addition to the logistics any other grocer faces.

Cost

Food that was bought from the Northern store was typically described as expensive and of low quality, especially compared to food available at larger grocery stores in Nipawin or Prince Albert. Here are two examples:

> I travel to get stuff, it's cheaper. In Nipawin. Then in Cumberland House. And that's the other thing. Is that, that's why Community Gardens is important. Things are getting expensive. A jug of milk here is $11.50. In Nipawin, it's $5.29. you know? So you can buy two of them with the price of what's here. Meat, $18 I hear for two pork chops. (Brian)

> We still harvest food from the land. But we do, we do most of our shopping in either Nipawin or Prince Albert. We don't get much food at the Northern because it's, the quality is not there and the price of course, is ridiculous. So, paying for something that does not have the same quality as you would find in the south, doesn't make sense. (Wayne)

In fact, getting to Nipawin to buy food comes with expenses, too. Not only does it require a car, gas, and time to drive the 167 km (one way) to get there, but it can also be stressful and incur damages on vehicles (e.g., incur additional costs for vehicle maintenance): "It [takes] a toll on the

person, like it physically takes a toll, plus your vehicle had to go through mud. Where normally, maybe a tractor goes through. That's the kind of road my poor little vehicles had to go through" (Ellen).

This price board that Colin mentioned, referenced above, piqued my interest, and I decided to collect data to try to replicate it. I spent one day recording prices at the Northern Store (September 27), and another in Nipawin at the Co-op (October 11). Using this information, I drew up a hypothetical grocery trip to compare the cost of going to the Northern, versus travelling to Nipawin. The grocery trip at the Northern was still more expensive than driving to Nipawin and shopping. However, the difference in cost is more than made up for by the hours spent on the road and the toll it takes on the car's suspension. See Appendix 4 for the Price Comparison Table.

Elders, young mothers, people without vehicles, and low-income residents are held most "captive" by the Northern store's prices and selections because of constraints on their financial situations and their mobility. One of the Kookems (Cassie) and her nurse (Lillian) described:

> Cassie: That's where we get [food]. That's how, the [Northern] store, there. Us old people, we can't go to Nipawin, just once in a while, we do.
>
> Myself: Yea, you catch a ride with someone?
>
> Lillian: Or if you have an appointment, or something. Sometimes you can stop and get something.
>
> Cassie: But here, when it's so expensive. I used to make salads and my kids used to like salads. But now… you can't do that. It's very hard. Especially with old age.
>
> Lillian: And old age pension.
>
> Cassie: Now, our medication is high too. […] Especially because us, we're not Treaty. We don't get free medication. […] Even I went to see the doctor for my eyes. I paid $120, just to examine my eyes. And glasses are expensive too.
>
> Lillian: So that doesn't leave a lot of money at the end of that, at the end of the month for food. To purchase food if you're buying it here.
>
> Myself: So do you feel like you can't buy the food that you want, sometimes?
>
> Cassie: No. Like, you pay your rent. Everything. Cable, food, […] medication, and telephones. You have to pay that by yourself.

Another participant, who did not have a vehicle, described similar struggles:

> It's kind of hard to budget for food here because it's expensive. And by the time you try to buy everything you need; you've got no money left for whatever else you need. So it is kind of hard to budget food-wise. And it costs a lot of money just to go to the nearest town to go shop, which is cheaper, eh? … But it takes money to, for someone to take you there. And that's quite a bit too, itself. (Wanda)

This elucidates Colin's point about "captivity": in order to save money, you need to spend money. As well, it adds to Cassie's point: that food is one of many expensive necessities in life.

Young mothers I interviewed talked about how it was difficult shopping in town for their families. Among the CAPC group, most of the mothers do not own a vehicle and are not currently earning wages, and they spoke about the "good and bad" sides of the Northern store. The good: they provide food for purchase "when you have nothing", even if it is expensive and of low quality; and sometimes they respond to "wheel[ing] and deal[ing]":

> Sherry: Come on [name]. What do you think about shopping at the Northern?
>
> Heather: I don't like shopping there. It's too expensive. Or I'll pay for what's on the shelf, and you get [ripped off].
>
> Samantha: Cheese like this is $17. And my kids love cheese.
>
> […]
>
> Sherry: The Northern is good and bad, right?
>
> Samantha: Yea, like it's there, when you have nothing, it's there, right. You have that option.
>
> […]
>
> Sherry: And I think the workers there, they'll try to help as much as possible, because […] I do a lot of shopping at the Northern. You know, and I'll wheel and deal. Sometimes they'll give in, like, ok, you can have that for this much. I don't push it too much. I'll buy things that the price it says, but, a lot of times, I say, this is way too much, I need a deal now.
>
> Brenda: [S]ometimes if I go to buy those romaine three packs or something, and you look at the package and you can tell some of them are no good, and I'll say, I might get one out of this. And they'll go, give it to me for just a couple of dollars or something. So. They're good that way but you just have to wheel and deal with them, I guess.

While the Northern store is better than nothing – or as another participant put it, "They could do better. […] It's not the best. You can live on it" (Lukas) – the sub-par quality of the food and the high costs have a harder impact on those in more vulnerable situations.

Meanwhile, the people who had access to vehicles and shopped in Nipawin on a bi-weekly or monthly basis described themselves as "fortunate", and most of them had vehicles and jobs. In a small, remote village such as Cumberland House, jobs are limited: with unemployment comes limited financial resources, and with that comes constraints on food accessibility because of access to outlets and the affordability of the food at those outlets. People with more financial resources can better afford food, and they also have access to cheaper and higher quality food elsewhere.

Selection

This is not solely a cost issue; the selection of food available at the stores in town is also a concern. As mentioned in Chapter Three, there are four outlets in (or near) town that sell food: The Northern, Mum's, CJ's, and Chief Island. The Northern is the only store that sells fresh produce; Mum's and CJ's sell fast food (mostly burgers, ribs and fries); Mum's and Chief Island sell confectionary items and limited groceries (ex. milk, eggs, non-perishables).

Shopping for groceries in town is mostly done at the Northern. Wanda, who spoke earlier about the difficulties of budgeting for food also described how the quality and selection of the food that reaches Cumberland House is limited:

> The things you really want and need they don't provide… Like vegetables. They don't sell squash or zucchinis, stuff like that. But they do sell the other ones, like carrots, lettuce, tomato, cabbage, stuff like that…. [and] by they time they come here through freight, some of them are already soft and brown and what not. (Wanda)

Likewise, Sue, (seconded by Heather) described how she "wish[ed] there was more" than basic vegetables and fruits that she could feed her children with:

> Sue: I just wish we had a lot more choices for food. A lot more, like, the different variety of fruits. Not just carrots and celery. Like the basic fruits and vegetables. I always wish there was different fruits I could feed my son because he gets sick of apples and bananas. It's basically the only freshest fruit at the Northern. And the rest is just kind of old. So. I wish there was more. […]
>
> Heather: Yea, what [she] said.

However, costs also impact selection: the limited selection at the Northern Store is intensified when the price puts some goods out of consumer's reach. And the items that are well stocked tend to be highly processed and low in nutrients. These points are summarized in the following quote:

> It's ridiculously priced. Even a pack of hamburger […] it would cost you like 5, 6 dollars [from Nipawin]. For a pound of hamburger. Here it's like, 11 dollars. Yea. Twice the amount. [People will] go to the other processed food that's cheaper. Like a bag of fries, or the cutlets that are, I don't know what the hell they're made of. (Harriet)

Her frustration is palpable. Figure 4.3 and 4.4 display the "little corner" of produce at the Northern; and for comparison, Figure 4.5 shows a portion of the produce section at Nipawin's Co-op (where most people said they shop for their food outside of town).

Figure 4.5: The produce section at Cumberland House's Northern store.

Figure 4.6 Unrefrigerated produce section

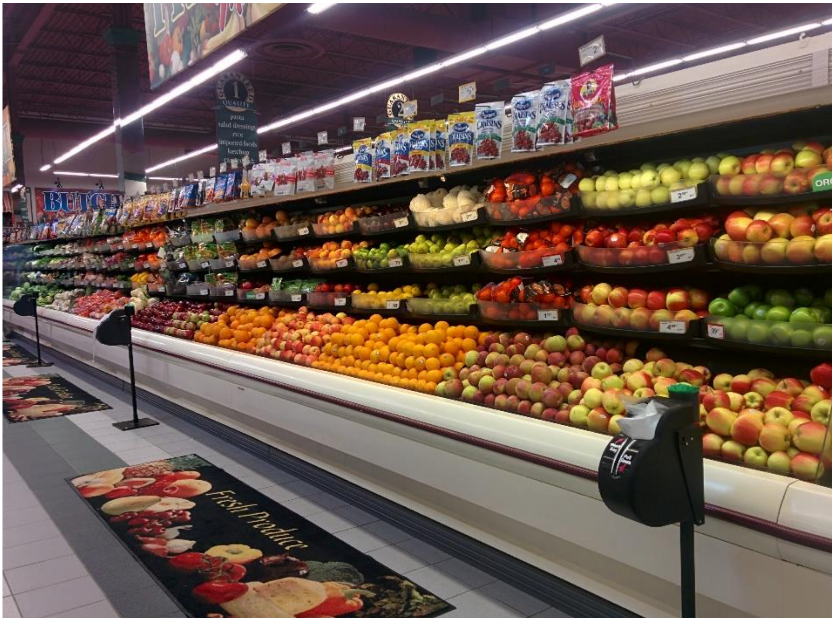

Figure 4.5: One section of the fresh produce section at Nipawin's Co-op Store. Not pictured: rows of shelving with more fruits and vegetables, including an organic section

Effects on Health

Affordability and accessibility of market foods have a strong influence on consumption patterns for most people in Cumberland House. Participants recognized that high prices and limited selection in the village, and the limits of buying healthy food (e.g., fruits, vegetables, meats) in bulk outside of the village, was contributing to inadequate and unhealthy food consumption; and cited the high prevalence of chronic diseases, such as diabetes, as proof.

Although I did not collect health statistics about diabetes rates in Cumberland House, one resident estimated 50-60% of the Cumberland House population had diabetes (Brian), another estimated 80% (Brenda); and daily, during interviews and in conversations with non-participants, I heard stories of participants' friends and family members living with diabetes, whom had died from diabetes, or were experiencing severe complications (ex. amputations) because of diabetes.

This disease, along with high blood pressure and kidney disease, was described as being new to Cumberland House and associated with what the literature describes as a nutrition transition. The decline of country food consumption and increase of processed foods was reflected on by Brian (age 58):

> I used to remember, [watching] CBC when the first TVs started in Cumberland House. […] watch[ing] hockey games. […] There was no chips that time. No potato chips. Nothing. But our delicacy, what we used to have, was muskrat tails. They were put in the oven, scratch the tail off, and like, there was a lot of them in the oven. […] That was our chips. […] There was no such thing as chips. We didn't have high blood pressure. Our people didn't. Now today it's different. I think every household has a diabetic. We used to, I guess those were healthy. Muskrat tails. (Brian)

As well, there was a lot of worry around the health of children, since the age at diagnosis has been declining. Among the CAPC group, participants described the difficulty and importance of changing eating habits, which will require more affordable food sources and more education around healthy eating for parents and children, because current trajectories of diabetes diagnosis are a huge cause for concern:

> Sue: My husband [and I were] trying to become a vegan […] but we didn't know enough recipes. We lasted about 3 days. [laughs] Because both of us are diabetic and are not very healthy. And just, very tired all the time. We need to change our nutrition and eating habits for our own benefit, plus for our children, […] then grandchildren also. And that's what I find we lack in this community, is the nutrition value of food, and portion control […] we were never taught how much to eat.

> Samantha: Or we'd eat rice with potatoes with bannock. […] It's carbs, carbs, carbs.
>
> Sue: And out of five of us children, only one is not diabetic. […] Four of us are diabetic already. And […] both our parents are diabetic. […] [Diabetes is] even hitting young children now. […] Like with my sister she was […] fifteen she became diabetic.
>
> Samantha: I think my daughter is on the verge. And she's only six.
>
> Sue: My sister-in-law was only 13 when she became diabetic and she already passed away at 31. […] [I]f everybody learned to change their portion control and learn more about nutritious foods, I think we could kick that in the butt, you know. Diabetes, high blood pressure, whatever. […]

These observations depict how diet-related chronic diseases looms over the village, and is a major threat to well-being for current and future members of the community. Access to nutritious food – notably, fruits and vegetables[33] - is not just a matter of choice or variety, but a social determinant of health.

Safety of food was another common concern, especially because of its health implications. Accessing nutritionally-healthy food has its challenges because of price and selection; but even "supposedly healthy" fruits and vegetables are from unknown sources, and coated with suspicious chemicals that are perceived to be causing sickness. Wayne described that he had "heard on TV [that] a group of scientists [brought] their concern to the Supreme Court and telling the court that a lot of our cancers are coming from the chemicals we put on our food", upon which he elaborated:

> I know that, like for fruits and vegetables, they put all kinds of preservatives to transport that food to the North so it will look half decent when it hits the shelves. It's a lot of chemicals being put into the vegetables and the fruits that we get in our local store. […] Because it takes a while to get something from California […] to here. So they pick […] while it's still green. […] It doesn't get the process, that full cycle that it needs to give your body [the nutrients] to fight off the diseases that we're plagued with. We're just going through the motions of supposedly eating a healthy vegetable or a healthy fruit. (Wayne)

Brian expressed similar concerns, describing his suspicions around what kept fruits fresh between when they were picked and when they arrive in the grocery store. Although, he alluded to personal behaviours – e.g., avoiding drinking and being "careful with what [one] eat[s]" (e.g., he explained

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[33] Primarily, fruits and vegetables; an interest in having home-grown eggs, beef, poultry, and milk was also expressed.

earlier, "I don't eat too much store food. I eat mostly moose meat, fish, and stuff like that") – that can reduce one's probability of being diagnosed:

> I always wonder, [about] bananas and apples, they send them from the States. […] Why don't they spoil right away, when you take them out of the tree? They must do something to them, so they don't spoil before they get to Cumberland House. And we say bananas, we eat bananas, they're fresh. You know? What did they do with them? Like a lot of our people are dying of diabetes, are diabetic, high blood pressure. (Brian)

Others described perceived associations between people getting sick more often and the foods consumed an agricultural system that uses "chemicals":

> I don't know what they hell they put out in the fields out there. […] That's a major concern for me because, I see a lot of people getting sick. A lot of vegetables they eat. Because they don't know what kind of chemicals they put in there and whatnot. (Isaac)

> I think some of the health issues we've got may well be related to chemicals in our food. […] There seems to be a higher than average number of people with Lupus. And there's rheumatoid arthritis. And some of the diseases I understand are kind of a roll of the dice for who gets them and who doesn't, but the dice seem to be rolling more frequently for some diseases now than used to. […] But I think most of those [dangers] are no different from food sold from the store in Cumberland House then they are for the stuff sold in Nipawin. (Colin)

This fear and distrust of conventional farming methods that use pesticides, fertilizers, and chemicals went beyond vegetables, and extended to animals as well. This concern includes livestock, as well as wild geese, fish and birds:

> And the farm products, they feed them too much stuff. The pigs and all that. The cows. They feed them too much stuff. […] Compared to a long time ago, when people used to eat wild food, ever since that stuff started to come in, the farms growing out that food, people started to get sick. (Albert)

> I don't like geese. Too hard. I remember the old days, like 60's and 70's, when my grandparents used to cook them they were soft. Now they're hard as a rock. I don't know why they are like that, it's because maybe they're eating too much in the farmer's fields now? All the chemicals they are eating? […] [O]ur fish right now, eh, they're slowly going because […] all that pesticides get into Saskatchewan River. And then Saskatchewan River flows to Cumberland. […] Now you're starting to see two-headed fish. (Brian)

> And when you find out, you read, or see it on the news, where at least 75 000 000 birds are being killed a year from pesticides that they put on their crops, eh? […] [It] worries you. And then [it] kind of encourages you to try and start your own garden in your

> community. And then at least you know what you're eating when it's coming from you. (Wayne)

Even food that has higher nutritional content seems to pose risks to consumers, both in the production stage of agriculture (when animals might encounter them) and after the food is bought in the store (when humans encounter them).[34] This has an effect on an entire ecosystem; not just the people who buy food from the grocery stores.

These participants have identified that current market food options and agricultural system stifles their ability to access food that is trustworthy from stores and in some cases, from the land; and thus, an alternative food source that is localized and transparent is sought through the Gardens.

Fragility of the food system

Establishing control over the food system by growing food in Cumberland House was identified by some as an important goal to work towards to introduce some security to a fragile food system. Some people described the market food system as being in a *current* state of fragility. That is, the remoteness of the village and the questionable road that leads into Cumberland creates an obstacle for leaving town to acquire groceries in Nipawin, and it can also pose a problem to the trucks coming into town to stock the local outlets.

This import-dependant market that utilizes an unreliable road can be drastically impacted when the road gets flooded and is impassable:

> [I'd like it if] nobody has to rely on food being shipped, you know. 800 miles away kind of thing. […] Because there are times, in the past, where the road was flooded out. And even, like our highway is improving more and more every year. But there were times when the transport truck couldn't even come. So the Northern would be empty. The shelves would be empty. There would be no fruit or vegetables. […] I'd like it if we don't have to rely on anybody. Because Cumberland has the potential to do it on their own. (Sherry)

Another participant spoke (at length) on the issue of food insecurity in reference to inadequate infrastructure for storage (rather than the road) in Cumberland House, as well as Prince

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[34] Note: While all of these responses come from people who work/garden in the market and community gardens, this awareness of chemicals on food was voiced by non-gardeners as well. These gardeners were the most articulate and thoughtful about these concerns, and thus quoted. Meanwhile non-gardeners mostly just stated an awareness that agricultural inputs affect their food, but stop short of describing their effects. For example, "When you go purchase in the regular store, you don't know where they came from. […] If they are safe." (Ellen, non-gardener).

Albert. As well, he questioned the stability of the global food system, in general. Solely relying on a market system that is fraught with so many unpredictable, moving parts creates a sense of insecurity; and filling your basement with home-grown potatoes presents a decent fall-back plan:

> So, in terms of food security. I think of, that in the context of the ice storm you guys had in Ontario, was it 15 years ago […]? Where it basically shut the province down for a week or two? I have a friend that did a food security study in Prince Albert and had to find out if the highways get blocked, how much do you have in the stores? And he found out the stores have virtually nothing. And storage for them is in the semi-trailers. And they're counting on them coming in every […] third day. So I don't know what stock the Northern has is. But it's not uncommon for them to be out of something from bread to eggs to milk or whatever, while the truck's coming in Wednesday. So I'm thinking, if they're kind of that close to the line, that if there was a serious weather problem, or something else, and the truck is two weeks late, they'd be out of a lot of things in the store. So food [in]security from that point of view is real […] I also think of the complexity of our economic system. If I go into the Superstore in P.A., I've got fruit from Chile, and garlic from India, […] this stuff is coming from all over the world. And we had that economic issue in 2008, I think it originated in China and sort of hit the States, and you know, there's questions about the security of the economic system as a whole. *And when you're on the very tail end of a long and fragile and complex system like that, I think it would be good to think about security.* […] So, I think food security is an issue here. I don't know how many people see that, or think about that. But it might not be the most rounded diet, but if I've got a root cellar full of potatoes, I'm good for quite a while before I go really hungry. (Colin)

For other participants, the fragility of the food system and issue of food insecurity was impending and tied to environmental issues such global warming. Preparing for the drastic changes that they perceive to be on the horizon – notably, droughts in the South – is essential for survival. They identified that there is a need to explore strategies for mitigating future food shortages, rather than continuing on business as usual, pointing to food production in the North via gardens as a potential way forward:

> Global warming ain't going to be closing down quick. The water is going to keep drying. And the North, that's where the land is, you know. […] Down the road, it's no longer going to be in the States or California, that's not going to be where we get our products from. […] We're trying to prepare for something that's coming that nobody is really seeing yet. (Amy)

> The way things are going in this world these community gardens are going to be important. […] Look at California. They're running out of water. It can easily happen in Canada, too […] So if they stop […] you can always rely on these [*points to potatoes from his community garden plot*]. (Brian)

> You start hearing droughts coming in the future, and you start worrying how, how are we going to continue eating the fruits and vegetables if they can't grow in the South anymore. And I believe in this Delta, we can […] help out in this food security and not only in the North but even in the South because the South are the ones that are going to be hit first. There's science saying that there will be droughts coming and they won't be able to grow the crops that they are growing now. […] I think it'd be an ideal thing to start looking into the future and how we can be […] part of the food security. (Wayne)

Wayne, in particular, captivated my attention when our interaction began with what became a mantra, "Food is life, without it you are dead". Multiple times in the interview, he spoke of how the time is nigh to establish a Northern-centered food system, pointing to signs from God that this will be a matter of survival, which requires attention sooner rather than later.

As well, he identified that it needs to be instigated by people in the North who will refrain from exploiting the resources which will outlast those under threat in the South:

> I see in the future […] southern people coming into this area […] to secure the South for food when California can't grow anymore. […] Our people won't [exploit it]. But somebody else will. Because people are going to do whatever it takes to survive. […] And there is droughts [and] famines coming. Because the Bible tells us that. It's going to happen. […] [T]hey call it global warming, but God says it's one of the signs. Nations will gather to talk about weather. […] All you have to do is read the Bible and you'll know all this stuff. But don't sit in idle to wait for these things to happen, it tells us. […] God tells me there will be shortage of food into the future. And why not start now. […] Don't wait 'til the time comes, when you, and then our resources won't be there. […] Now's the time. Ten, fifteen years down the road. Oh man, I've seen, big things for that [market] garden. (Wayne)

The precarious state of the food system within Cumberland House and beyond that is identified by these participants reveals that, for some people, establishing a level of self-sufficiency and increasing food sovereignty is tied to ensuring food will be available, and avoiding short- or long-term food shortages. As such, establishing a food source in Cumberland House at the individual or community-level is a means of disaster mitigation – whether that disaster is the road leading into Cumberland House shutting down for a week or collapse of the global agricultural market.

Conclusion

This chapter has discussed the primary opportunity, motivation, and need that explains why these two collective Garden initiatives are being pursued by this community. This chapter set out to develop a contextual understanding of the role and place of the market and community gardens in Cumberland House society, in relation to community-identified challenges and goals; as well as resources and assets available to address these issues and objectives. These findings describe a complex of factors – access to land, cultural values associated with gardening, and a need for an alternate food source – that set the stage for these gardens.

In understanding what the community is facing in terms of challenges to accessing food, and ways they see the Gardens as filling some of these gaps. We can start exploring the outputs and benefits the gardens provide, as well as some of the challenges they have faced that are impacting their production, impact, and functions. Chapter Five will discuss these factors. Now that we understand why these gardens have been implemented, we can start to understand what they are growing.

CHAPTER FIVE

Findings Part Two: Primary Benefits and Challenges

This chapter discusses the primary benefits from the Market and Community Gardens; as well as some of the main challenges faced by these initiatives. In interviews, participants spoke about the Market Garden mostly in terms of its products and outputs. They described that the MG produces high quality food in terms of taste and freshness. This food is perceived to be valuable because it is accessible, affordable, available, and comes from a place with which they are familiar and connected. This initiative has also created jobs, which provided employment, skills, and pride to workers (to varying degrees). Meanwhile, the Community Garden provides a space for people to grow food beyond their personal properties and communally, as well as an opportunity to increase growers' capacities. Food grown in the CG garden benefited growers and was also shared among their social networks.

In the second half of this chapter, I describe the most pressing challenges facing the Gardens that came from interviews and participant observations. The primary challenge with the MG centered around sustainable production, and at the CG it was sustainable engagement. The challenges associated with the MG were also a result of a transition to a new governing body. This transition highlighted some challenges that come with running such a project under leadership that can change over time. As well, the economic aspect of the MG presented challenges with finding funding that did not compromise the intention of the Garden. Also, limited access to proper tools, human resources, and infrastructure – due in part to limited funds – made work more laborious and constrained productivity. Finally, in the MG, there were limitations faced in being able to meet community needs due to inconsistent availability of foods.

At the CG, the challenges were far less complex and centered on barriers to participation and sustained engagement. Weather, limited infrastructure, and the demands of gardening were some factors that deterred members from taking up or maintaining their plots. These challenges will be interspersed in the discussion of the Market Gardens challenges, since many are closely related to the tensions experienced in the MG.

These benefits and challenges have created an impact on the community; and they have given way to exploring more ways that Cumberland House can become more active, engaged, and

autonomous over its food system. In the final part of this chapter, I describe how the uptake in gardening has also led to discussions around starting a local Co-Op store.

What do these gardens grow?: Outputs and Benefits

This section describes the primary benefits associated with the MG and CG. Specific to the MG, I discuss product quality, product accessibility, and jobs. For the CG, I discuss how it has created a space to grow food for themselves and their families; as well as a place to spend quality time alone and with others. In both the MG and CG, these spaces have connected growers with each other, and growers with the land that is being gardened. In both cases, these gardens become sites for building community.

Quality Produce

When asked "What does the Market Garden provide?", a resounding and nearly unanimous response from participants pertained to the desirability and quality of the food. That is, the MG didn't just grow vegetables; it grew tasty, fresh, and thus desirable vegetables. Although some of the most sought-after food from previous MG years were not grown in the 2017 season (e.g., strawberries, cantaloupe, and cherry tomatoes), many foods were available for purchase on selling days this year, including white and red potatoes, turnips, carrots, corn, beets, cucumbers, cabbage, and zucchini. The foods produced at the MG were described as have a discernable "unreal" or "sweet" taste, as described by the following quotes:

> Last year, we bought lots of strawberries and made our own jams here. Oh man, you can't find anything like that in the store. Man, like that jam tasted so good. Unreal. Unreal. (Wayne)

> I do buy from the Market Garden. I just love buying stuff from there. You should have seen the cantaloupe last year. Oh my goodness. Talk about, I've never had a cantaloupe like that. […] It was so fresh and sweet. I could have just sat there all day and ate it. They were so awesome. (Ellen)

Others described the quality of fruits and vegetables from the MG by comparing it to the same fruits and vegetables from the store, describing that they "prefer[ed] Market Garden, fruits and vegetables, to store bought [b]ecause they taste better" (Wanda).

One participant made the comment that the fact that tomatoes from the garden had a taste, at all, was remarkable in comparison to store-bought, "Because you go buy tomatoes in the store,

they […] don't even have any taste. And you get tomatoes from the Garden, you can just taste it" (Greta). The novel tastes the Market Garden produced was remarkable and exciting for participants, which made food from the Co-Op in Nipawin pale in comparison:

> You think you're getting fresh out of the garden from the store [Co-op] because like you know, it looks good. [...] You're used to that taste, but then you taste something that's actually right from the Garden that just finished being washed [then] it's in your kitchen, and it's like, wow. What a difference. It's so much, like, juicier. Like the cucumbers, that they had, it's different texture and a different taste. The corn. Like I prefer to get it from the Garden now, because I used to always buy it in stores. [...] I am always bragging about that corn. Like, you gotta try that corn! (Harriet)

> I tried strawberries [from the Co-op] after I had some from here. [laughs] Yea, [Co-op has] disappointing strawberries. (Samantha)

From my own experience, the corn was extremely sweet, and crisp, and the potatoes were flavourful and tasted fantastic in a stew or mashed.

In contrast to the way people described their experience with food from the Northern (discussed in Chapter 4), which was usually underscored with frustration, there is discernable excitement towards food from the Garden. I also saw this firsthand when offering assistance with the MG sales: one woman, upon paying, flashed me a big smile and held up her bag of potatoes and said, "This is my dinner tonight!". A man who bought 12 ears of corn, carrots, and potatoes said, "I can't wait to eat this with my moose meat". The MG worker I sat with at the sales table described that in previous years, people lined up an hour before the selling began to get their hands on a basket of strawberries. The pleasurable experience people get when they eat the food from the Market Garden makes them excited about eating fruits and vegetables.

When asked why they thought the food tasted so good, many research participants attributed this to the short distance between where the food is grown, sold and consumed. For many, eating vegetables that are grown within their community is novel; as the other fruits and vegetables available locally in the Northern Store have traveled thousands of kilometers to arrive on the shelves. James described how food from the Market Garden can be purchased and enjoyed when it is "fresh", while "the stuff from the Northern, that comes from Winnipeg, it's not fresh. They say it's fresh. It's actually two days old by the time it gets here. […] You can tell the difference".

Wanda also described the quality of the MG foods by comparing it to the vast distance food travels to get to the Northern:

> [At] the Market Garden they just take it out of the ground and clean them and then sell them. […] Food is expensive, buying out of the store. Whereas the Market Garden is cheaper and it's fresh. But no, the stores, they're not fresh, eh. Because they get brought in from like Winnipeg and they get transported here. By the time they get here they're half no good, so. And people don't want to buy that kind of stuff. (Wanda)

Wayne perceived that this decrease in distance between consumers allowed for foods to "ripen on the vine" like it was supposed to, rather than being picked early so could ripen during transportation. This difference in harvesting, for him, accounted for the marked difference in taste:

> It takes a while to get something from California, so it takes a couple of days – three or four days – until it gets here. So they pick it early, while it's still green. […] [I]t never had the chance to ripen on the vine. […] But [the food from the MG] tasted so much better. […] I think it was because the food ripened on the vine. (Wayne)

Beyond freshness and taste, some participants expressed the food being grown within the community came with a type of quality assurance, describing how the transparency of the growing process made the food trustworthy. Again, this made the food desirable and met conditions fruits and vegetables from the store did not meet. Ellen expressed her satisfaction with the fact that "organic" food (a term 10 other participants used to positively describe the food) was being grown in a place she can see, by people she knows. These levels of familiarity – with the site and the growers – infers that the food is fresh and safe:

> [I]t's fresher. And it's more like, you see where it was grown. […] Plus, they're organic. They're fresh. And they're grown from […] regular, local people. So you know where they're coming from. Like, when you go and purchase in the regular store, you don't know where they came from. […] [S]ometimes you don't even know if they're safe. You know. What was in that, the soil they were grown in? […] Versus here, you can see the Garden itself, right? [...] It's just like you went and grew it yourself. And you know the people that handled it. And they're great at it too. (Ellen)

One of those "people that handled [the food]", Isaac, had similar sentiment towards his food, owing to his involvement in the growing process. He trusts the food that he grows himself:

> I always get [my vegetables] from here. Because I know I planted it because I don't know what the hell they put out in the fields out there. That's the thing. […] I'd rather see what I grow that I can eat it, because I can trust it. And that's a good thing. (Isaac)

Some participants were not overtly enthusiastic about the MG food quality. Greta described this year's quality as "OK": "The beets were a little small. Carrots were OK. The cucumbers were OK. They picked their cucumbers a little too late, they were overdone, but they're still edible". Another expressed concern over the quality of the food at the MG because they used water from the Saskatchewan River, which he says is where sewage water gets dumped. As a result, he grows his own food in the Community Garden and avoids buying Market Garden potatoes. Nevertheless, a majority of the participants described the quality of food favourably; and this was the most mentioned benefit of the MG.

(Seasonally) Accessible Produce

Not only is food produced in the Garden of high quality, but it is very accessible (albeit not year-round). A key aspect that makes it so accessible is that it is more affordable than at the Northern Store. As Ellen described, "[N]ot only do they get the fresh stuff, but they get it with a cost that they can afford". These prices are set by a worker at the Garden to intentionally be lower than the Northern store to benefit the community. For example, a cucumber from the MG costs $2.00, and $4.79 from the Northern; a ten-pound bag of potatoes was $5.00 at the MG, and $7.99 at the Northern; and 6 ears of corn are $4.00 at the MG compared to 4 ears of corn for $9.99.

Wanda describes herself as a regular (weekly) customer, and said the MG prices allowed her to buy vegetables more often and go without them less:

> I never really used to buy vegetables, like cabbage, carrots, and that, 'til they had the Market Garden. Because I couldn't afford it, eh? It was too expensive. But this here, it's cheaper. And they give out more. (Wanda)

In addition to keeping prices low, the MG made accommodations specifically for people with mobility challenges or on welfare by delivering food. As described in the previous chapter, this caters directly to people who had the most difficulty accessing affordable and healthy foods:

> Every welfare day, every time they get their child tax, their GST, they pre-order their potatoes or whatever they need. They pre-order. And then we package them for them. We get them ready. And once they get their check or whatever they get. So we just leave them or deliver them. If people have no vehicles, that's where I come in, go around delivering potatoes, what the people need. (Isaac)

Cassie, an Elder, described how this benefited her. Being able to call and have potatoes delivered to her made it easy for her to partake in the MG and access cheaper vegetables:

> Cassie: Me, I liked it. It's cheaper there [at the market garden] to buy those vegetables. Not like here [at the Northern].
>
> Myself: Do you have to walk over there to pick them up?
>
> Cassie: No, no. […] I phone [Isaac]. […] It's really nice. If I could go, I'd like to go.

While no other participants described this cost as personally affecting them, others did perceive the lower price made it easier for people to access food in town. This lower price was described as being "reasonable […] not [like] the store prices […] for [my neighbours] to afford it, and to feed their families", which is important in this community, because price is a significant barrier to people being able to access vegetables. As Isaac describes, "[I]t's mostly about price. […] because […] there's mostly people here on welfare. And the rent is so high on these Sask Housing houses. […] [W]e try to go lower for the products here, for them".

Wayne echoed that providing affordable food was the "purpose" of the MG and making prices suit the needs of Cumberland House residents was calculated and intentional. He took people coming to the MG as a sign that this purpose was being served: "We didn't charge the same as the Northern store, absolutely not. That wasn't the purpose. [T]he purpose is to try and help people to afford good food. Yea. Healthy food. [And] it was being achieved. The people […] were coming to buy". Harriet and Greta also described how beneficial this was for others: people who could not leave town, Elders, and people not used to having fresh vegetables were especially benefiting from this community initiative:

> Everybody [benefits]. Especially the ones that can't go to town. Yea. […] A lot of the older people, too. Like the Elders. […] For sure, because they, like the potatoes especially, the prices are unreal at the Northern. So they'll go to the Market Garden, buy a ten pound bag which is only like 6, 7 dollars. As opposed to the Northern, where a five pound bag is the same price. (Harriet)
>
> I'm so glad it's here. Because it's fresh. It's fresh and the people that don't get out have access to it. (Greta)

The Market Garden provides an alternative from the Northern Store for people may not have the time, knowledge, or space to upkeep a personal garden; again, making locally grown food more accessible to more people. The Market Garden removes barriers for these people so they can enjoy food grown in Cumberland House without needing to grow it themselves:

> [T]here are people that don't have gardens have no choice but to go to the Northern. But now […] if they want something fresh they can just get it there (Harriet)

> [T]hey used to have lots of gardeners here. […] But now they don't […] they're depending on us. They don't want to do that back-breaking work and whatnot. (Isaac)

> I like eating vegetables. Especially the fresh ones. And I just like don't have the time to have [a garden]. So, having to buy fresh carrots and stuff like that without me having to grow them. It's great. (Ellen)

Even people who did garden appreciated the accessibility of this food source. Greta, who keeps a personal garden, described that the MG provided a kind of safety net for when their own vegetables did not grow as planned, or she could not devote as much time to the garden:

> I do buy some items from the garden, there, if my crop didn't turn out. Like last year, my turnips never turned out. Don't know why. Cabbage, didn't really turn out. So I go buy from them. And I ran out of carrots one time, so I had to go buy from them. Sometimes, what you grow won't grow for a season, but it will grow beautiful in the next season. […] But I was, I was kind of sick and I had a lot of trauma in the summer. So I wasn't into gardening as much as I normally do. (Greta)

Likewise, James said he regularly supplements his own harvest from the CG with MG products (when they are available), buying what he does not grow himself and favouring the MG produce over store-bought:

> We got our own potatoes. But carrots, onions, tomatoes, cucumbers. And that's what we look for, lettuce and cabbage and turnips. And also beets. That's what we buy from the Market Garden. But they, if they don't have that product, then we have to go out of town to get that. (James)

Two others (Albert and Colin) who had plots in the CG said they enjoyed purchasing fruit they did not grow in their own plots: strawberries (both Albert and Colin) and tomatoes (just Albert).

In general, the MG has created an option for consumers to access fresh food, regardless of capabilities to grow food themselves. And when the food is available, its affordability allows more people to enjoy fruits and vegetables that they would otherwise go without if the Northern Store or the Co-Op in Nipawin was their only option.

Jobs

The MG has also brought created jobs for Cumberland House, where “jobs are scarce” (Harriet). Job creation was cited by others as being valuable for this community; and specifically, it is a job that benefits the community by providing healthy food and providing workers with “exercise and work ethic”:

> It creates employment for a community that does barely have any employment. So to have that opportunity to have that, that’s really great. […] Because we need people to work here. And I think people do want to work, but where do you work, right? (Ellen)

> Myself: [W]hat are some of the benefits that you’ve seen from the Gardens being introduced?
>
> Greta: Well, of course, nutrition. Mhm. Healthy food. […] And the employment and exercise and work ethic.

Although none of the people I interviewed said they were interested in the job (aside from those that already had it, see below; as well, most of the participants had indicated they already had a job), speaking with the coordinator and manager, the employment aspect of the MG generates a lot of interest within the community.

One of the coordinators described that when they hosted a town meeting about the garden, most people attended because they were looking for jobs;

> I tried to have some meetings and economic development meetings to get people think about, where can we go in the community and stuff we can do. […] But I was a bit disappointed that almost to a person, the people that came to the meeting want a job. That they wanted a job at the Market Garden. Or they wanted a job somehow. Not, they weren’t interested in I’ll say the concepts of economic development. Or the community level of economic development. No, I want a job. And I, to me, the discussions didn’t sort of go in the direction I would have wanted them to go. (Colin)

The manager described that many people applied, although only a few were hired:

> Because this year, I think there was, let’s say about 100 something applicants for this job here. I can’t – 100 and something. Or they wanted to apply for this job. And there’s only so many people who get hired. (Isaac)

While these jobs are of great interest, speaking with the current workers indicated that satisfaction with the job, itself, varied. Speaking to the three labourers at the MG, they all described that this job was filling a particular need. One worker, who had not gardened before, described that he applied for the job because, “I needed a job. […] Yea, and I wanted to learn how to grow

my own stuff so I could do it in the future" (Dan). This gardening knowledge was the most valuable piece he got out of it, "I just learned how to grow and when to harvest and all that. That's what I wanted to learn. It didn't change me. [It] just gave me more experience to grow and when to grow and when to harvest, I guess". Dan also noted that hiring more workers would be valuable so others "could learn how to garden their own gardens too in the future", noting that the skills learned were valuable beyond using them on the job.

While working alongside another gardener (who was not interviewed), he explained to me that he valued having a job. He had received training as a heavy equipment operator, but could not find steady work in town. He applied when the job at the MG came up, mentioning he could not be "picky" about employment, and that he appreciated the opportunity to work within his community and close to his family. In addition, employment would allow him to collect Unemployment Insurance the following winter, and that would help him financially.

David, the third Market Gardener described the job as something he felt compelled to do since he had experience gardening and had knowledge to share, "I always had my own garden. I […] figured I'd help them out". He enjoyed some aspects of the job, like the physical activity, but was unsatisfied with the pay: "For me it is, well, I like moving around. […] Yea, physical activity. Yea. It's not so much a, the money is terrible". He described the job as something he had a personal affinity to, "I just like what I'm doing. I don't enjoy it. But part of me, I guess, gardening. […] I was always a gardener." (David).

Speaking to Amy, one of the previous MG coordinators, the jobs provided in previous years seemed to provide better working conditions (in part because they had access to better funding). She described that the workers gained pride and knowledge from the job, which also filled her with pride:

> I gravitated towards [the Market Garden], going there. Because you see the pride in these guys who have never had jobs before. And how prideful they were. They were able to name the different kinds of lettuces! I didn't even know that. There's different brand names of these lettuces. There's different types of tomatoes they were growing. They were able to identify what type of bug or whatever it was that was killing their turnips. They were able to articulate that to me when I went to go visit them. And it was a profound good feeling, going there. I enjoyed going there. Because that's where I got my positive energy back. It was pride, I guess. (Amy)

Isaac, who has been working there for five years, described similar personal affects, saying the job is fulfilling because it allowed him to provide for the community, as if he were providing for his family:

> I grew up with a garden. But that was just mostly for our food. Our food, to take care for the winter. And that's basically what I'm doing now, I can see it's the same thing, I'm just getting ready for the winter, for the community now. […] So back then, I was younger, I could just pick for my family, and that's it. And now, I'm picking for the whole community. And that's what I think about, family like that, the community. It's hard work, but it pays off in the end. (Issac)

In summary, the MG provides new jobs opportunities; albeit, only to four people in 2017. The jobs have served and suited some better than others; but in general, they provide opportunities to work, learn, and/or to provide for the community. As well, they have created local food champions who have stronger gardening skills and food literacy.

A space to grow

People who actively participated in the CG benefited from having space to grow food beyond their private properties. This is beneficial because their own properties were inadequate for personal gardens, or they have personal gardens and it gave them a chance to let their soil rest. James, who has had a plot for three years, explained that he used the CG rather than having a personal garden because "[his] kids like playing in the backyard" and "not only that, the moisture, there's too much rain. The water sits there for so long and it's hard to get rid of. We have to pump it out".

The CG, itself, was started because a Colin's own yard was too shaded, "We gardened right in front [of our house] here for a number of years. But it's shaded there. We never had a good garden. And it was nice soil at the back [where the Community Garden is]. And sunny up on the hill there […] I asked […] if I could grow a garden back there". Another woman I met in the Garden said her own yard behind her home in the village was not fenced which resulted in dogs frequently running through it, and this prompted her to get a plot at the CG.

Others who had personal gardens used the CG to let their own lie fallow. Greta does not use the CG, but mentioned that her friends do because "they have a garden in front of their house too, but this year, they're letting it rest. So, they're planting in the CG". Likewise, Albert explained that he had been planting in his own yard for 30 years and had noticed some of his crops were not

growing as well. After seeing people grow successfully in the CG, he decided to start a plot over there so his own land could get some much-needed rest:

> I've been working in there for four years now. […] Because my garden wasn't that good over here. I started to see these people have more, they were growing more stuff in that garden, than mine. That's why I leave these alone for a while. […] Because I kept growing, every year I grew everything there for 30 years now. Would be 35 now. […] Nothing was growing in some places. [So] I moved here too. (Albert)

These spaces are open to everyone, for "[w]hoever's interested. [T]hey have enough plots to make sure everybody gets a plot. […] [T]hey don't discriminate" (Sherry). These plots are located in areas with great soil for people with or without access to gardens on their own property.

An added benefit of the community garden is that it is access to a *communal* space to grow, which provides an opportunity for gardeners to learn from each other and share the work of tilling. So, it is a space to share knowledge and some resources. James described that he gets inspired from walking through the CG, and gets ideas from seeing others' plots, "I go and look at these other gardens, as I walk along. [...] Seeing how other people are doing it, and how it's turning out for them. And if they see my garden, and if they like it, I'll give them an idea".

Likewise, Brian mentioned that he learned from a fellow Community Gardener, "[Charlie] is a gardener. [Charlie] knows what he's doing. And all the times I learn from him, too. Like I always noticed [Charlie] planting vegetables all the time". For newer CG-ers, this learning process can be slow: it still stands that potatoes are the most popular vegetable grown in the CG, since they are so easy to grow. But Colin (who grows quite a range of vegetables in his plot – potatoes, corn, turnips, carrots, dill, squash, and pumpkins) described how people who come into the CG only knowing how to grow potatoes could be inspired by the more diverse plots they grew alongside:

> Most people grow potatoes. […] And it seems some people will grow nothing but potatoes for a year or two years. And then they start kind of branching out in other things. And I think I've been perhaps a little bit of a role model in the branching out thing. Because people will look at my corn and […] my carrots, and […] my turnips, and then you see them sort of [grow] a few more. I think […] if someone else is doing it, well, then they'll try that. (Colin)

This communal space for growing means people have space to grow they might not have on their own personal property; and it also offers learning opportunities that would not be available if they were growing in isolation. As well, the community garden coordinators till the land; participants

mentioned that this shared burden of labour made this space even more favourable for growing. From this space, these participants can grow vegetables that will supplement their and their family's diets.

A place to go

The CG also provides an enjoyable place to go on their own or with their friends or families. For one gardener, Brian, the CG was a space in which he could grow and harvest potatoes, but it also provided him with a place away from his home and away from town that he could go to, which he described as a place of serenity. He described how he enjoyed "the peace and quiet, you're at the Garden, you know. Away from politics, away from everything. The people. The gossip. You know? And I enjoy it there. Things like start thinking spiritually, you know" (Brian).

In my own experience at the CG, I felt this "peace" that Isaac described. I really appreciated having a place like this to go and spend time, especially when I felt isolated during my three week stay in an unfamiliar place, and with there being few places in the village for me to hang out. I spent most evenings in the CG, my favourite time being at sunset (see Figure 5.1). I would usually take this time to reflect on my day either to myself or over a phone call home to friends or family. This Garden provided me with a sense of belonging and relaxation.

I personally observed people spending time at the CG with their friends or families; and some participants described this in interviews. As mentioned earlier, Cassie described herself as "too old" to garden; but Lillian maintained a plot. When Lillian went to harvest, she would bring the Golden Girls with her. They enjoyed going for a drive and would be "talking like girls in grade 6, in Cree and giggling and stuff" (Lillian) as they sat in chairs at the garden and told Lillian what she should plant next.

When I was tending to a plot one night, a gardener pulled up with his mother, his two young brothers, and his son. His mother stayed in the car, watching with a smile on her face as her son tended to his broccoli plants, and her grandchild played tag with his uncles, running around with cabbage leaves on their heads. Another evening, Brenda and her granddaughter knocked on Colin's door to invite him and his granddaughter to join them picking carrots. I joined them, and we spent over an hour picking carrots by flashlight, chatting and laughing, each trying to unearth the biggest

carrot. The CG provided participants and their families with a place to spend quality time together, and it appeared to be a place that made people happy.

Figure 5.1 Sunset at the CG

Community building

Both of the Gardens contributed to positive feelings of belonging and pride for participants and on-lookers. Some interviewees indicated that the MG played a role in creating an identity for the village. People in the CG described how this space was where they built relationships with other Community Gardeners and their families.

The MG was described in terms of collective ownership and pride. Two other participants expressed this in reference to seeing the market garden foods being provided outside of the Cumberland House. Ellen described how this was creating an identity for the village, taking it out of isolation:

> Ellen: We are an isolated […] It's all bush. And it probably amazes some people, like people actually live here? But it is a beautiful island. […] We don't live in the jungle or anything like that, like people might think. We do see the world […] [The Market Garden] kind of puts you, especially when you're producing such wonderful

> vegetables and giving people opportunities to buy them, but also into surrounding areas, it kind of like tells people that we're here. Like, Cumberland House is here.
>
> Myself: It's creating an identity for you guys, you feel like?
>
> Ellen: Yea, exactly

David described a similar sentiment towards the MG label (see Figure 5.2), and how it was one of those things that make Cumberland House "push [its] chest up in the air":

> The label on there, Oh man, it's ours! […] [O]ur characteristics in this town is, yea, we, there's a lot of times we'll stick our head above water and push our chest up in the air, and we're proud people. And, Cumberland's been known for canoeing, and hockey, and being very competitive in whatever we do. And at least we've got that, yet, eh? […] You know, people from here, when they see a simple label like that, or a judge sitting on TV and they go, oh that's from Cumberland! He's from Cumberland! Right on! (David)

Creating this label and seeing it on food that would feed people in the community and seeing it sold at farmers markets outside of Cumberland House was creating a positive reputation for the community, making the village a place people were proud to be from. The MG has become evidence of ways the community is "coming to work together" (Karen) to do good work.

Two others described how they felt MG encouraged notions of self-efficacy and planted seeds of empowerment within the community:

> And it makes you feel proud that you're buying something, because it's grown here, right? It's like, wow, you know, right? This is GROWN here! And it's like, it, you feel proud for these young people that are growing this and it's like, right on. You don't realize how good of a job you guys are doing, and people are proud of you for doing that. It is nice. (Harriet)
>
> [It's about] empowerment. Because they could feed themselves, showing them how to do it. And they are no longer ignorant about it. […] That's one of the things, you have to show Aboriginal people, you can't tell them, or you can't give them, because then you become part of the problem. (Amy)

Other ways that the market garden has been part of building community include donating food to community feasts for wakes and weddings, inviting Elders to pick berries, and inviting elementary school students to learn about planting. A show of community investment was also suggested by actions I witnessed: while working the gardens, people would drive in on vehicles to

say hello and check on the workers, and Dan said he recognized this as a show of community support for their work.

At the CG, Brian's involvement as a coordinator resonated with some of the sentiments Isaac mentioned as a MG manager, where he said he felt like the community was his family for which he was growing food. Brian was even moved to tears talking about it: he described how his involvement at the CG was his way of giving back to his community and sharing teachings from his grandfather, who had taught him how to garden. This type of belonging and contribution to the community provided him with a sense that he was rebuilding a relationship that had deteriorated when he was "going the wrong way" in the past:

> I always try and give back to the community. […] That's all I wanted. […] I just want to leave my people with my help. It's hard […] when you don't feel respected in your own community, you know. And your call […] is to help out. […] I love my people. I always love my people. […] But I try, that's why I wanted community gardens. […] Giving back. Yea. Giving what my grandfather taught me to give it back to the community. […] [I learned] I was going the wrong way. Ended up in jail. Hurting, stealing. Doing B and E's. But now, I want to give back. […] It's not [my] garden. It's the community's garden. It's the people's garden. […] I am trying to help them out. But anyways. Sorry for getting emotional. (Brian)

Other gardeners in the CG described that the time they spent there gave them a chance to reinforce relationships with other CG gardeners and their families. Colin described this in three different ways: he spent "good quality time" with his granddaughter planting at the garden; sharing food and his root cellar helped build "good social relationships"; and relationships were strengthened by conversations that happened as people planted and harvested alongside each other. He adds, "you can get into a conversation [with other gardeners] you couldn't get into sitting in front of the Northern store.

While working in the CG, I saw these things myself, too. At the CG, I frequently saw families there and rarely saw people arrive alone to harvest. People pulled up in trucks or vans; some in couples, and some with children, parents, and grandparents. One night, as I was helping a gardener named Jerry in the CG weeding onions, James pulled up in a truck to harvest potatoes. Jerry picked some onions to give to James, they proceeded to spend about 20 minutes speaking in Cree and laughing.

In a small community where “everybody knows everybody” (Ellen), these gardens have provided opportunities to grow closer and feel more connected. In growing their own food and selling it in- and outside of the village, community members have felt more connected and prouder to be from Cumberland House. And through their involvement and interactions at the CG, participants found opportunities to share food, stories, and time with their families and other gardeners.

Figure 5.7 Cumberland House Market Garden logo

Things That Need Tending to in the Gardens: Tensions and Limitations

There are many welcomed benefits and outputs that come from the CG and MG. Overall, people in Cumberland House are excited to see these initiatives taken up and are enjoying the food, jobs, and experiences that are coming from them. However, there are some factors at play that are limiting the amount of impact these Gardens can have on the community. In discussing some of these challenges, the tensions underlying the intended purposes and realized impacts of the Gardens are revealed.

At the MG, finances, infrastructure, and market demands have limited its potential and compromised some of its operations. At the CG, there is still work to be done to increase and sustain engagement. Some of the obstacles people experience that keep them from starting a plot or keeping up with it include weather, limited infrastructure, and the demands of gardening. Rather than describe ways these gardens are failing to meet the needs of its community, these challenges indicate that there is still work to be done. As well, these limitations point to extraneous support and actions that can take place to support building community food security more generally.

Limited (and Limiting) Finances

One of the largest obstacles facing the sustainability of the MG is finances. To begin a project such as the MG, quite significant economic inputs are required. In the year prior to conducting this research (2015), a new Village Council was elected. This shifted the responsibility of the MG to a new administration; and this new administration has made adjustments in operations to save money.

The driving force behind the garden is not to make money; the purpose is to provide affordable and healthy food to a community that otherwise lacks it. That is, the goal is for the MG to sustain itself, and to sustain the community by providing jobs and food. This is explained by one worker who had been there since the beginning (Isaac) and a previous coordinator (Wayne):

> We're not doing it for the cash, or to make a fast buck here. We're trying to make money for the Garden next year and for those guys to afford it, to eat it. (Isaac)

> Providing that Garden there, and lowering the food like we weren't doing it at that time to make money. It was more or less to show the community that it, this is could help with, the determinants of health, your health there. You have to factor in what you're eating. That working and providing yourself these foods, it gives you a sense of self confidence boosting, and you're feeling good if you're eating right. (Wayne)

Even with strong community buy-in, the MG has required much of its finances to be covered by subsidies and grants. The current coordinators have set out to make reductions in expenses and get the garden to "stand on [its] own" (Colin), in part because the output is so drastically dwarfed by the financial input required to keep the MG going:

> I just don't want to, you know, falsify what is happening over there. It's a lot of subsidized money that's keeping it alive. It's not a viable business. […] Last year, it spent $170 000 and I think they said they brought $7000 back. (David)

> [W]e inherited [the Market Garden] from the previous administration. It had been losing about $150 000/year. I was not convinced we could turn it around but was determined to bring the losses down to something we could afford. […] We still sold almost as much as last year and cut our losses to about $20 000. (post-site visit email communication with Colin)

To explain some of these costs, leading up to this garden season, investments were made in the High Grow Tunnels to help extend the growing season (see Figure 5.3 and 5.4) and other tools; an instructor specializing in grow tunnels was hired from out of town; ten to twelve workers were hired and paid between $18 and $20 per hour; and seedlings were purchased from Nipawin and transplanted in Cumberland House to make the most of Cumberland House's relatively short growing season. In comparison, this year, they purchased a potato harvester; 4 employees were hired at $12 an hour; and everything was grown from seed.

In these first few years of operation, indeed, money was spent. Grants from various sources were acquired to cover costs for infrastructure, the instructor, and workers. The previous administration was able to offset many costs with external funds. Plus, the value in this project lay in modelling a possible solution to high food costs in the North:

> [S]ome people were complaining we were spending too much money on the Garden. But in order to work a garden, you need equipment. And you have to buy equipment to start your project. And in any business, you don't expect profit right away. But, to me, it was a profit right off the bat because we had a project and we found funding that supported that type of project, and we were able to employ people from there. Because I know without a project, nobody is going to give you any money. […] We realized that we could maybe start something here and try and help the North and try to encourage them that they could do the same thing. (Wayne)

Community members saw great value in the project, and one participant made this known to the new administration when rumours came up that the MG might not be pursued in the 2017 season:

> Harriet: There was a rumour, after this new mayor and council came in […] that they were just going to scrap the whole idea of the Market Garden. […]
>
> Myself: And was the whole community upset that there was this rumour?
>
> Harriet: Uh, yeah?! […] When I heard it, I went up to the person that was running for council, I said, ok, before we go into voting here, I'm hearing this rumour that you guys are going to scrap this market garden idea. He said, no. I'm not making decisions like that. I said, ok, well good, because there is a rumour out there that you guys, and a lot of people are actually upset about it. […] Because like I said, it was the big thing […] you don't want to take it away.

Given the way this MG is intentionally run – that is, the price of food is set at affordable price for consumers, rather than a price that mirrors the cost of production – it is not surprising that a project like this needs to be subsidized. But, running an enterprise that runs on grants comes with challenges: namely, meeting funders' stipulations.

For example, in previous years, the funds acquired to cover the wages of the workers was for "trainees", not "employees", because funds for hiring employees were unavailable:

> You have to be familiar with these grants that are available. Instead of employing, if you, if I was to say I want to employ her, I need some money, there's no money anywhere province or federal to employ somebody. But if I was to say, I want to train that person, my chances of getting training dollars for you would be great. (Amy)

This means that every year, new people were hired since most people from the year before had finished their "training". There were little to no funds to hire them on as employees afterwards, resulting in high turnover.

A benefit of this is each year, new people have the opportunity to earn money and learn gardening skills – each year, "different people are given a chance to work there and […] experience jobs and [provide] vegetables for the people in the community" (Greta). However, a downfall is each year, inexperienced workers are hired, which impacts the efficiency at which the MG can run. One worker also commented that having a more experienced workforce would be beneficial for knowing when things should be harvested, "[We need] someone who really knows what they're really doing, yea. […] [Someone] would come here and tell us, 'Oh these ain't ripe yet.' And we would ask them about it. And they'd ask for their, what do they think, eh? They'd come help us out a little bit" (Dan). Because the MG is reliant on subsidies, its operations are determined by the conditions set out by the funders, and this can limit its operations in many ways.

Currently, there were only funds to cover half the wages for employees (rather than full wages), so the workforce was reduced dramatically. This year, one manager and three labourers were working, which put a considerable amount of work on a few people. A worker's spouse described:

> [L]ast year they had like seven people employed. This year, it's only three. [T]here should have been at least a couple more. Because it's a lot of work. […] [E]specially right now, when they're trying to get all the stuff out before it's [winter]. It's a lot of area to cover. […] [H]e comes home, a few times, like his back is just aching. (Harriet)

Working with the gardeners, I saw and experienced that the work was very physically demanding: digging up, bagging, and hauling potatoes in the field is a cause for aching backs. On selling days, one person manages the sales, which leaves only two others to do the physical labour; which is a significant amount of work and makes for slower progress. But hiring more people quickly becomes a very costly part of the operation, since wages remain the costliest aspect of the MG operations. One of the current coordinators explained:

> They [the previous administration] talked about having 20 people hired there, seasonally. Well, from a little bit of pre-garden work to post-harvest work, a garden is just about 6 months. So if you've got 20 guys in there, 1000 hours […] [W]e're limited if we're hiring people to minimum wage […] around $10 an hour. So, if you've got 20 guys at $10 000 each that's $200 000 you're going to pay out in wages for these seasonal workers. […] And that doesn't include any energy cost, that doesn't include any seed. That doesn't include any seeders. Nothing. Just wages. (Colin)

The MG being under-staffed and the work being labour intensive also resulted in food becoming over-ripe or not being harvested. There is still work to be done to find a way to match the Garden's abundance with the workforce required to procure it for consumers.

As well, in attempts to cut costs this year, vegetables were grown from seed instead of seedlings. This resulted in a later harvest as some products had not reached maturity by the end of September; and for some crops, it resulted in no production at all. This impacted consumers because it meant the outputs from the MG were available to supplement their diets for an even shorter time period than previous years:

> Yea, we started late because we had to plant them ourselves. We got transplants, they were big when we put them in the ground [last year]. […]That's why our tomatoes didn't turn up right away [this year]. That's why they're so green. [...] Yea we had to plant them as seeds ourselves this season. […] Last year we planted them in May. […] Started selling by end of June. […] But not this year. We weren't selling until August. (Dan; see Figure 5.5)

Isaac suggested that in subsequent years, they would look into starting seedlings in February in one of their own grow tunnels to save on costs and not lose on productivity.

Starting up a business such as a market garden, which is predicated on a labour-intensive activity, that aims to sell food that caters to a community with a high proportion of people of lower socioeconomic status, all while providing workers with adequate wages requires money. Acquiring subsidies and reducing expenses to sustain the project impact its operations in various ways, and

present challenges. Significant adjustments have been made to the operations this year to account for changes in funding, which has reduced expenses and helped the MG continue for additional seasons; but has also impacted Garden's productivity.

Figure 5.8 High Grow Tunnel

Figure 5.9 High Growl Tunnel without the plastic covering

Figure 5.5: Green tomatoes in the MG tunnels, taken September 25th

Lack of Tools and Infrastructure

The MG would benefit from more tools and infrastructure to help with the production and storage of food. Speaking with and working alongside the workers at the MG, not having the proper tools impacted the efficiency at which they could work.

One worker described the challenges with weeds that were faced since they did not have the plastic mulch layer this year: another effort to save money. Unfortunately, Dan infers that the money saved on the mulch layer has been spent in work hours dealing with the weeds by hand:

> We didn't have that mulch layer, eh? Because last year we had mulch on everything and weed barrier. […] Get the right tools. It will save us time on weeding, too. Yea, just weeding by hand. Using those hoes. But with that mulch layer, we wouldn't have to weed. (Dan)

This year, because of the rain, the ground was especially heavy. The small tractor the MG uses was not able to till the ground very well. The newly purchased potato harvester – which requires tilled ground to operate – did not provide as much value as intended, as a result. The heavy rainfall matched with subpar equipment resulted in much more manual labour being required for harvest. Compounded by the reduction in the workforce, lacking tools and machinery have greatly impacted production at the MG.

In general, gardening is hard work; which is why so many turn to the MG instead of tending to their own CG plot. In the CG, too, there are certain resources that could decrease the demands tending to a plot require, and increase uptake and engagement. For many, getting to the CG is an issue as it is on the outskirts of town. Those living in Pemican Portage nearby have the advantage of having the CG essentially in their backyard; but only a small percentage live in this close proximity. For people who do not have a car, the 20-30 minute walk to the garden on a regular basis can be too demanding. As well, many people who did not participate in the CG said their reluctance was attributed to a lack of gardening knowledge. Most people in Cumberland House do not have adequate "tools" (e.g., knowledge) to grow their own food in the communal plots offered. As well, those who do grow in the CG face a knowledge deficit in growing more than potatoes. Limited gardening knowledge among the community has affected the uptake in Community Garden plots. It also limits the extent to which a space to grow translates to procuring food to supplement their diets.

Lack of storage infrastructure is another issue, especially at the peak of harvesting. The last week I was in Cumberland House, it snowed; I was there at the very end of the harvesting season. We worked tirelessly to get everything from the field (mostly potatoes) out of the ground before it got too cold. As we picked hundreds of pounds of potatoes, we quickly ran out of space in the storage facility (see Figure 5.6).

Furthermore, lacking a refrigerated storage facility or root cellar means waste, as well as space, is an issue. Again, the MG has proven it is capable of growing an abundance of food; growing food is something the land and this operation is very capable of. But, without the proper facilities or access to a processing plant, it cannot be fully appreciated by consumers. Creating a processing plant or a storage facility was identified as an important piece that could allow for more growth and a move towards "real food security":

> We were throwing away food already, last year, because we couldn't handle it. […] A lot of it spoiled on us. So, we had to throw it away. But we gave a lot of it away, too. […] Because it comes to a point where you can't handle anymore, we were doing so well. But still, like, we thought we were going to get a processing plant. And I know that's what's needed. […] So, in the future, in the future, I don't think, 'til we have a processing plant, then we can move to the next level for that project. (Isaac)

> One of the issues I've been working on here is storage. Did I ever show you my root cellar? We should do that before you leave. Only one in Cumberland House. I don't

> think we can have food security without storage. […]. So the root cellar has always been part of the agenda here. (Colin)

This issue around infrastructure is also an issue for the CG. Two CG participants described that a lack of storage space impacted their productivity. In both gardens, the fertility of the land needs to be met with better storage. Storage infrastructure becomes a limiting factor on the food that can actually be utilized from a garden:

> [S]toring food […] is what we lack out here. Only some people grow two whole rows, three rows [in the Community Garden], because they don't have no place to store it. like myself last year, it was about four of five bags that had gone to waste, I had to throw them away because there was no place to store them. (Brian)

> Another obstacle, is the storage. Like, you know, you harvest, but you can only harvest enough to use for the next couple of weeks until they go bad because we don't have root cellars. We don't have anywhere to store the vegetables. (Brenda)

Investments in better tools for harvesting and infrastructure for storing or processing food is absolutely necessary for cutting back on food waste, extending seasonality, and overall increasing the impact and benefits gardening can provide to Cumberland House.

Figure 5.6 Washing station full of potatoes, taken October 4 2017

Inconsistent Availability

The main issue the customers of the MG described was the inconsistent availability of the food in terms of temporality and variety. While they appreciated the ways the MG supplemented their diets – and particularly, the quality of these foods that remained unmatched by other market sources – this variability in food availability posed frustrations.

Currently, the MG is limited to only selling foods at the end of the growing season – which, as indicated above, is mostly because the infrastructure for storing and processing the food does not currently exist. This means MG remains dormant throughout the winter and spring season. Consumers described that they would like to have year-round access to these foods: "Yea, they don't sell stuff all winter long. […]. It would be good if they did little sales here throughout the year, eh?" (Wanda); and "[It's] seasonal. There's nothing we can do in winter time with it. Too bad, eh?" (Harriet).

During the growing season, inconsistent variety also caused some disappointment among consumers. This year, in particular, there were less fruits and vegetables to choose from. Dan described how the 2016 harvest compared to 2017:

> Last year was probably the best season since I was working there. Yup. Way more vegetables. […] There was peppers, cantaloupe, strawberries, what else? Tomatoes and cherry tomatoes. What else was there? Celery, cabbage. […] Raspberries. (Dan)

This lack of variety was discouraging to see, and was disappointing because they had been enjoyed by shoppers in previous years:

> I did not see cantaloupe. And I did not see strawberries and stuff like that. […] I find there's not so much [variety]. […] I'm pretty sure they used to have celery and stuff like that, and beets and stuff. But I don't know what's going on there. Why they didn't put that – I don't know, maybe it didn't work out well? (Ellen)

> I kind of feel disappointed because there's no strawberries. I like eating those strawberries because they're nice and sweet. (Wanda)

> When I go, I only find the potatoes. So that's what I only buy, the other stuff are gone. (Karen)

This disappointment people are feeling is only further indication of the strong appreciation and preference people have the MG foods and the value this operation brings to Cumberland

House. People in the community enjoy supplementing their diets with MG foods, and wish they had more opportunity to do so:

> I feel happy, […] when I get the food from here. Local. Sometimes I feel a little sad because we don't have enough of this product. I have to go out of town to get that product. If they don't have it here. Yes. That makes me a little sad (James)

> [E]ven today I'll get calls and like, oh, it's so sad over there now. There's no, hardly any strawberries. […] But you know, who knows, maybe it's just a bad year, I don't know what's going on there, I haven't gone yet. But I've got people phoning. (Amy)

Some of these issues are specific to this year. For example, I was told the lack of strawberries was a result of a wet spring; the lack of tomatoes was a result of the late start because of the seedlings; and cantaloupes were grown but attacked by pests (Figure 5.7).

This "bad year" for gardening was also witnessed in the CG. The coordinators noted that there was a noticeable decrease in participation this year. Colin described that the "odd spring" meant there were limited opportunities for people to go in and plant between rainfalls: "Last summer, virtually everything we had was filled. And this summer, there was.. lots of open spots… I think people had to hit the window between one rain and the next to get your stuff done, and I think people just may have missed it and didn't bother" (Colin). Likewise, Lillian described how she had had a CG plot every year, and this year all of her potatoes were "underwater" and none would be able to be used. Weather variability is going to be an issue with gardening, especially given the open area the CG is set in. This issue can deter some people from participating in the garden, and it can also hamper their efforts.

Figure 10.7 Very few cantaloupes survived the pests this year

Developing a Locally Owned Food Source

Cumberland House residents continue to rely on the Northern Store and Nipawin's Co-op as their main source of fruits and vegetables, as the MG and CG supplement their diets to varying degrees. For example, while I was selling food at the MG, people would walk over with grocery bags from the Northern Store. Currently, people are still quite dependant on outside food retailers despite preferring to get their vegetables locally:

> Lukas [owns local restaurant]: I prefer to get my vegetables there [at the MG].
>
> Myself: For home use? Or for restaurant use?
>
> Lukas: For home use. Yea. [They] don't have tomatoes and lettuce, romaine lettuce. They don't grow those. They might grow tomatoes but not the kind that I need for my burgers.
>
> I still have to go [to Nipawin] at least twice a month. I still have to get my other stuff. [The MG] don't all have the fruit that's out there. They have the basic stuff, like the vegetables and that. (Harriet)

As well, a few described that beyond fruits and vegetables, they would like to see livestock and eggs sold through a local market:

> I would like to see farm animals back in this community. Like the cows, pigs, and chickens. We have to have a market for that too. Because I know a friend of mine who has pigs in Nipawin and he's doing well. […] I'd like our community to be more productive. To be self-sufficient. To help ourselves. So we don't have to run to Nipawin. Yea. Because we can't eat from our own store here. It's poison. (Greta)

> Like I know [the Market Garden in 2015] had those pigs and they had those chickens. So I, and I do believe they were somebody had suggested, why aren't they not getting the chickens that lay eggs. Like, you could have fresh eggs everyday. (Harriet)

When we compare what has been produced by the MG and CG, and what the community is expecting from its local food procurement, it has been suggested that these gardens cannot be a standalone project. In exploring these Gardens, the discussion and exploration of another local food project is being explored.

Town council and some community members are exploring the idea of opening a Co-op store in collaboration with Co-op First from Saskatoon. I was told that there was a building in town that is available for this store, and this space could also be the site for the future root cellar/storage space. This could benefit the MG as it would create a permanent space to sell products regularly; and a communal storage area could benefit Community Gardeners as well.

It could also create a one-stop shop that could meet more needs of the community members, and reduce dependency on outside outlets more generally. As Colin explained:

> I still think when you go to the store, the stuff you buy there that you could have grown in the garden is fairly minor compared to your total grocery bill. Which inevitably includes detergent and paper towels and all types of stuff that you're never going to eat. (Colin)

Colin continued that opening a Cumberland House Co-op store could also offer support to other local food producers and thus provide a wider range of local products for consumers. For example, the Co-op store could add local fish to its inventory:

> But I think the [more] we can produce in Cumberland House, then the better off we'll be. And I think if we have a store, it will make it easier to get people to engage in an entrepreneurial way in the production. Certainly there are fisherman here who fish. […] [In Air Ronge,[35] they] provide an outlet for local fish production. And we don't have that here. These guys across the road, did you talk to [Albert]? OK. They fish

[35] Air Ronge is a northern village, 235 km north of Prince Albert on the Western Shore of Lac La Ronge, very close to La Ronge.

> [and] give us fish. And there's kind of that informal market with the fish. But, not nearly catching a significant percentage of the fish market. Most people, if they want fish, the end up buying frozen whatever from the Northern store, instead of something more local. […] I think there's lots of opportunity there in terms of diversifying and in terms of our food stuff. But having the store as an outlet is very critical to building that. (Colin)

Indeed, there are commercial food producers in town, but they tend to sell their goods elsewhere – as mentioned, Albert is a commercial fisherman who currently takes his product out to Winnipeg, where "[t]hey go from all over from there. […] Walleye, white fish, pike". James has been in involved in commercial maple syrup business that "went really well" selling in Saskatoon, Regina, the Pas, Prince Alberta, Laronge, and Nipawin; and he currently harvests wild rice, which gets processed and sold out by La Ronge Indian Band.

As well, there are informal-market food sales within town, where people make ready-to-go meals and baked goods (ex. while I was there, I heard about sales for chili and bannock, and cinnamon buns), and they advertise by word of mouth or the Cumberland House Buy and Sell Facebook group. Based on one participant's response, combining the MG with meal-prep would be welcomed:

> Lukas: And they gotta be a little more creative, when they have their little market garden. Not just vegetables…. Pies, meat pies. And whatever. Whatever you can create something out of those vegetables. You know. Like they have a lot of great cooks here. Utilize that. They have a big kitchen over there. That they could use commercial equipment there to bake. Whatever. Make salsa's there.
>
> Myself: So are you bored with the food that they have?
>
> Lukas: Yes, exactly. They need to get a little more creative. They need to jar some of their, pickle some of it. […] Even cut up some stuff, where, like, make a stir fry, put it on trays, then yea, stuff like that

These ideas are in the works and, as of communication with Colin in April 2018, representatives from Co-ops First and Cumberland House administration have been developing plans for a small café or buyer's club.

In implementing these local gardening initiatives, the value of having local food procured by local people is being realized by the community. In identifying the ways these Gardens are benefiting the community but also the ways they are limited to meeting all their needs, there is work being done to fill in those gaps. Through and beyond these Gardens, the community is

discovering ways they can utilize local capacities to gain control over the sources, pricing, and distribution of fruits, vegetables, and other food stuffs.

Conclusion

This chapter has outlined the ways the Community and Market Garden have impacted Cumberland House. After describing the reasons why the Gardens were implemented in Chapter Four, this section described the ways these Gardens are meeting the community's aspirations and needs and areas of improvement that remain.

These Gardens are benefiting the community and their outputs are welcomed. High quality foods, jobs in the MG, food that is grown from their land and people they know and trust, and food that is affordable for most people in town are some of the greatest benefits from the Market Garden. The Community Garden provides a free opportunity to grow food, which is not available to most people in their yards. And it provides a place to connect with neighbours, learn from other gardeners, and a place to enjoy oneself. These Gardens are seen in a favourable light and are areas the community take pride in, contributing to a sense of belonging and identity.

These benefits prevail even though challenges surface in sustaining MG operations and sustaining membership and engagement in the CG. Building local food capacities requires money, tools, infrastructure, and also comes with a learning curve as the capacity of the Gardens and the needs of the community are still being realized. Attaining these resources is challenging and can limit the productivity of the Gardens.

A notable result of these Gardens is that they have also become sites to imagine what else Cumberland House can do to increase control over their food system and support local food champions. In implementing the Gardens and understanding their limitations, additional ventures – such as the locally owned Co-Op store and communal storage – are becoming the talk of the town.

This chapter concludes the findings I have drawn from my time in Cumberland House. The following chapter discusses the information I have gleaned from interviews and participant observations and compare them to the information presented in the literature (described in Chapter 2). This discussion describes how these experiences taking place in Cumberland House contribute

to the broader conversations in Food Studies research; specifically, that of food security and Indigenous food sovereignty in Canada's North.

CHAPTER SIX

Discussion

Finally, we arrive at the Discussion Section: the part of the research paper where underlying meanings are explored, the importance of my research is highlighted, and my results can be "infus[ed] with meaning" (Claybaugh, n.d.). When I set out to collect my data, I strove to answer the question: Have the community-initiated Market and Community Gardens impacted Cumberland House and its community members' lives and well-being? If yes, how? If no, why not?

To answer these questions, I set out to achieve the following objectives (I include them here because, after 100 pages, we both might need a refresher):

1) Develop a contextual understanding of the role and place of the market and community gardens in Cumberland House society, in relation to community-identified challenges and goals; as well as resources and assets available to address these issues and objectives.

2) Explore the impacts of a market garden and community garden on the wellness of Cumberland House community and its members.

3) Provide useful information for market and community garden members and coordinators for evaluation and/or refinement of the initiatives.

4) Identify other factors (social, political, economic, cultural, and environmental) that may be affecting the gardens' operations, capacities and/or implementation process (i.e. what opportunities have been seized, and what challenges have been faced since starting the gardens that have arisen from situations outside of the direct control of gardeners, non-gardeners, and/or coordinators).

5) Acknowledge and utilize the "ethical space" (Ermine, 2007) between myself (as a researcher/outsider) and the Cumberland House community for dialogue; and conduct my research in a decolonized, culturally-appropriate method with respect to community.

To meet Objective Five, I utilized community-based methodologies, welcomed feedback from the research participants, and reflected on my positionality throughout the data collection, analysis, and presentation process. Had I had unlimited time, funds, and other resources, I could have improved my capacity to meet this objective by working closer with the community; involving community members in data collection and analysis; or returning to the community to discuss

findings and welcome comments and validation of my work. I also recognize and acknowledge that I have my own biases – many to which I am blind, no matter how much reflexivity I employ – that may have created a different type of "space" between myself and Cumberland House. There is always room to improve in this area; and it is the duty of academics to continue ask how research can be decolonized and done in culturally appropriate ways.

In accordance with Objective Three, I have provided a concise report of my findings to interested participants and a copy of my thesis in full to a community representative. My findings will be able to be read and shared within the community, and hopefully can be utilized to benefit the community (for example, for grant applications). As well, I hope this research can lay some groundwork for future research in Northern Saskatchewan and encourage more work to be done to understand the role and impact of local gardening initiatives; and, more generally, to strengthen equitable and empowering food sources.

As I discuss my findings further in this chapter, I will meet the remaining objectives: I will describe the ways I understand these gardens' places in Cumberland House, the impacts they are having, and internal and external factors that are affecting the ways they are operating and impacting the community. As I do this, I will also discuss my findings in connection with the broader themes in food studies literature with reference to my literature review.

Before delving into the research findings, I provide an aside on my experience as a graduate student. As demonstrated by my 30+ page methodology chapter, I spent a lot of time considering my positionality and methods, and how that affected the research. I hope the discussion of these issues can offer some insight to the student experience to bring attention to some issues – namely anxiety and depression – to pre-emptively address these issues for future students.

In regards to the actual research findings, I discuss the following: the experience of food insecurity in Cumberland House, the unique characteristics of their CG and MGs, and ways the Gardens provide desired but insufficient levels of accessible, affordable foods to the Cumberland House community.

In discussing these issues, the participants' forecasted "future of food" for Cumberland House and Northern, First Nations communities more generally will also be discussed. These gardens demonstrate how this community is exploring its assets, resources and capacities in response to colonialism and food insecurity; although they are limited in how they can achieve

these goals. These tensions between aspirations, capacities and resources demonstrate that more support for community initiatives is needed. Specifically, more support beyond these individual community initiatives: support that redistributes the onerous weight of fighting food insecurity and the social determinants of health to municipal, provincial, and federal levels of government.

An Aside on My Mental Health

Before I delve into the discussion of my research, I first want to acknowledge that this research was interrupted by a two-year leave of absence. This leave was due to my experience of anxiety and depression, in part triggered by the stresses of school and writing this thesis. I realize that this experience of anxiety and depression is not uncommon among graduate students. Many students' research and academic careers are impacted, interrupted, or derailed by mental health issues.

My struggles were mainly due to unchecked anxiety and depression; which is something that needs to be acknowledged in graduate classrooms more directly and explicitly. In our first week of classes, plagiarism – for example – was mentioned in every intro: what it looked like, how to avoid it, and the dire consequences that would follow should we ignore such warnings. I knew of no students in my cohort who plagiarized or were caught plagiarizing. On the other hand, warning signs of anxiety and depression were not discussed; nor were the online, on-the-phone, and in-person counselling options that were offered through Lakehead University and that were paid for via student fees. Meanwhile, there were numerous occasions where I found myself talking with other students about the mental difficulties with which we were struggling.

Graduate students are at higher risk of mental distress compared to the national adult population, be it clinical depression, anxiety, exhaustion, overwhelm, or other negative mental and emotional symptoms (Hyun et al., 2006). Personally, I only found out about and pursued in-person and over-the-phone counselling when I was already in a dire state of need.

I would like to recognize with gratitude that my immediate supervisors were extremely supportive in my decisions to prioritize my mental health; Student Accessibility Services has been extremely easy to work with and incredibly helpful; and the counselling offered through Student Health & Wellness was incredible. But Lakehead generally can do a better job at spreading information about resources that exist on- and off-campus. In general, supporting student mental

health needs to be better prioritized and communicated by Lakehead University, as well as post-secondary institutions in general. It is the deafening silence which leads me to include these issues in my thesis; if only to encourage folks who may read this to consider resources available, or their position and availability to make mental health a more central aspect of pedagogy and academia.

The Experience of Food Insecurity in Cumberland House

In many ways, initiating these Gardens are not just about providing fruits and vegetables to people; they are about interrupting the current routines of food production and consumption that are harming the well-being of the community and that of future generations.

Cumberland House is living the experiences of food insecurity outlined in the literature review. Particularly, living under strong influence of a distanced, industrial, and oligarchical market food system paired with a nutrition transition; struggles with co-occurrences of poverty and unemployment; and lacking access to healthy and safe food from the land and stores. The results of this are biophysical effects on individuals, as witnessed in high rates of diabetes; and which has been identified as a health condition that disproportionately affects Indigenous communities in the literature (Haman et al., 2010, Health Canada 2008; Gaudin, et al., 2015; Nu & Bersamin, 2016, Schiff et al., 2020).

Beyond seeking fresh and healthy food as a means of evading disease, though, these Gardens are also about being proactive with the resources at hand. That is, this community is actively questioning the deeply embedded political, economic, and social systems that are making food insecurity so prevalent. These systems are being questioned by other Indigenous communities and food sovereignty researchers (Hiebert & Power, 2016). While food sovereignty was not mentioned explicitly by any of the participants, these gardens can fit in the Indigenous food sovereignty framework (similar to Daigle, 2019). That is, as Indigenous food sovereignty "embodies the importance of Indigenous peoples' ability to control their food systems, including markets, production modes, cultures and environments" (Ray et al., 2019, p. 54), the goals of the Cumberland House gardens are indelibly tied to this same want and need for addressing food insecurity issues through increasing autonomy, involvement, and control over the food system. Re-establishing a level of self-provision at the individual (community garden) and the communal level (market garden); re-asserting control over food (its cost, nutritional content, and production

processes), and how their land is utilized, underlies these initiatives, alongside restoring health to residents by combatting food insecurity and increasing food access.

Such a finding is consistent with work done by Skinner, Hanning, Desjardins, & Tsuji (2013) who did work in Fort Albany, Ontario; they state:

> Fort Albany residents did not use the exact term […] but food sovereignty was, in essence, what they were describing; they expressed a desire and suggested strategies to enhance their independence, self-sufficiency, and acquisition of new skills, in addition to advocating for better food security… The goal is to achieve food security concurrently with food sovereignty (p. 11)

The interviews revealed that financial constraints are a huge factor in the food insecurity experience and prevalence in Cumberland House (consistent with findings from Tarasuk & Mitchell, 2020). Having the financial means to travel to shop in town or to support access to and upkeep for a vehicle to shop in Nipawin had huge impacts on people's diets in Cumberland House. These differences between financial statuses also leads to social stratification, in part because they are identified as personal ineptitudes rather than indicative of systemic issues. For example, Brian described the ways people on welfare or disability feel marginalized and called "lazy": "the reason why they're lazy is because they're tired of applying for jobs and they never get picked. […] [We get labelled] welfare bums, bootleggers, drug dealers" (Brian).

The confluence of various factors – including the forced separations of families with residential schools, the resulting interrupted intergenerational knowledge transfer of harvesting skills and culture, the history of Europeans depleting natural resources for imperial interests (rather than subsistence), the biophysical changes the dam has had on local wildlife, the introduction of and reliance on social transfer payments, and industrial shut-down – have made the ability to purchase food from the store an important factor in whether or not an individual can feed themselves.

The dependence on market foods values convenience, ease of access, and price over localness or cultural connectedness to food in many cases (also found by Stroink & Nelson in First Nations in Northern Ontario; 2009). Finances being a determining factor in whether or not people can access health foods makes most people in Cumberland House feel stuck; or, as James described, "Economically we are […] trapped in our community".

Considering these factors, it is not *just* that financial constraints produce food insecurity; but *that* financial constraints are such a predictor of food insecurity is actually a demonstration of the "erosion of Indigenous people's access to their foodways" that has occurred (Burnett, Skinner, LeBlanc, Chambers, & Hay, 2017, p. 334). This research is further evidence that the commodification of food, the transition to a wage economy, and the introduction of welfare payments have all contributed to devaluation of traditional foodways, the compromise of reliable subsistence strategies, and are a direct result of colonization (Shuklar et al., 2019; Timler et al., 2019). The ways in which the "colonial narrative of economic development forced communities away from local subsistence" is evident in the manifestation of Cumberland House's prevalence and experience of food insecurity (H. A. Thompson et al., 2018, p. 409).

Uptake in Gardens to Combat Food Insecurity

The Gardens in Cumberland House offer a unique setting to study the role and impact of a community and market garden in a Northern, predominately Indigenous community experiencing the impacts of generations worth of economic, social, and political change. First, it is unique that Cumberland House is not a First Nation, but a municipality predominately populated by First Nation and Métis peoples. This points to a gap in the literature. That is, the other communities mentioned in the literature on gardening initiatives in Northern, Indigenous communities are First Nations: Fort Albany (Skinner et. al., 2014); two unidentified First Nations in Northern Ontario (Stroink and Nelson 2009); Wapekeka First Nation (H. A. Thompson et. al., 2018); and Fort Providence (Ross & Mason, 2020). This research uniquely presents the experience of off-reserve, rural Indigenous folks, who have none of the traditional Indian Act power structures or Crown relations that an on-reserve, First Nation governed by a Band might.

In Cumberland House, a complex of factors – access to land, cultural values associated with gardening, and a need for an alternate food source – have resulted in these Gardens being implemented by the community. Again, this creates a unique situation: the gardening initiatives in First Nations that are already examined in the literature mostly started by researchers introducing gardening as "complementary to traditional food practices" (H. A. Thompson et al., 2018). Meanwhile, the residents of Cumberland House started their own Community and Market Garden.

Here, the availability of arable lands along with the rootedness in cultural affinity for gardening (but also, an interruption in the transmission of gardening skills and knowledge over generations), and a craving for affordable healthy food (but also, compromised accessibility to such foods), led to the uptake – rather than introduction – of gardening initiatives. In reference to the contentious nature gardening and agriculture has held in Indigenous histories, it is apparent that gardening is very much a part of the culture for this specific community and something the people of Cumberland House welcome.

As Ross & Mason (2020) describe the ways Fort Providence are taking up aquaponics and hydroponics, and H.A. Thompson et al. (2018) describe the Hoop Gardens in Wapakeka, so too is Cumberland House exploring the technology of High Grow Tunnels. This use of new technology does not take away from the grown and harvested nature of the food but shows how the value lies in procuring food from the land, providing for the community, and its freshness and deliciousness. Despite these "neotraditional" methods of growing the food (Cyr & Slater, 2019, p. 56), the food from the High Grow Tunnels is nonetheless valued and comes to be understood as traditional in many ways: particularly, as food that supports the historical ties they have to being a community full of gardeners.

Of note, the gardens observed in previous research faced issues with upkeep, in part due to limited gardening skills. For example, Spring, Carter, and Blay-Palmer (2018) describe how gardens in Kakisa, NWT "ultimately failed" because they were "built under the assumption that community members had the skills needed to care for and utilize it" (p. 130). In Wapekaka, the plants thrived in the grow tunnels but this did not always lead to procuring food for the community because food was not picked on time, or harvested food was not familiar and thus not utilized by the community. Similar issues were faced by Cumberland House: some CG plots were overcome by weeds or vegetables were not picked on time and went to seed. At the Market Garden, limiting factors included needing better knowledge around when to harvest food (as well as having more human resources to do so), how to protect it from predators, and – for the consumers – how to cook and enjoy the foods that were being harvested. As well, the limited infrastructure to store, process, and distribute foods shows this gap between the capability of growing food and procuring food for community consumption.

Cumberland House still has work to do to reacquaint themselves with gardening practices and build their food literacy to make the CG and MG more efficacious. There would be much value in creating complementary programs such as teaching gardening skills at the CG, and food literacy skills to go along with selling food from the MG, which was suggested in other literature that spoke of gardens (Timler et al., 2019). As well, the community is already exploring ways to build their infrastructure capacity to create better storage and processing to meet the productivity of their land.

The socialized nature of the MG also sets Cumberland House apart from the other market gardens. There are some aspects Cumberland Houses Market Garden that coincide with the literature: in the same way racialized immigrants from rural and farming backgrounds find working in market gardens provides “biographical continuity” (McClintock, 2018, p. 8), so too do Cumberland House residents see working in the Market Garden as a way to connect with their community, culture and history.

But, despite Cumberland House using its MG to provide jobs to residents and growing food with the intention to sell it, the wages of the workers and the price of the food are not set according to a free and open market. The food prices are set to meet community members’ needs and are set to be more affordable than the Northern Store, rather than generate revenue or profit for the venture. While this presents the challenge of resourcing ongoing subsidies to keep it going, it is evidence of a way this action is a part of resurgence to re-establish Indigenous authority in the face of colonial-capitalist systems (consistent with findings from Daigle, 2019).

A subsidized MG with social pricing is a mix of traditional and settler-colonial concepts of currency-based trade and incorporates Indigenous traditions of sharing within a community. By paying people to work and charging people less than what it costs to produce the food, this effort is subverting a type of settler colonial economic authority that usually determines who gets to eat fruits and vegetables, which Daigle discusses (2019). For example, compared to other studies, there is usually a premium people pay to grow and harvest their own food rather than buy it at the store (like at the community garden in Guelph described by Cochran & Minaker; 2020), but rather than that premium being paid by the consumers, through the MG it is being paid by the town and thereby socialized. This is an interesting example of daily acts of resurgence and ways of envisioning new realities for food systems (Muller, 2018). When we consider the intentional ways

imperial powers have attempted to separate Indigenous peoples from their traditional and subsistence food practices, this act can be seen as radical.

The tension between subverting the colonial economic authority and the MG's viability being threatened because of this very subversion is apparent. That is, by not adhering to the economic system set out by the capitalist system, this MG has in essence become "externalized by the cost benefit equation" (Cochran & Minaker, 2020), making it harder to justify its existence to policy makers and governments (including the municipal governing body currently in charge of it). Furthermore, it makes it harder to secure funds for its future existence. As Arcand states, "the need to fit productivity of land into the Western economy to justify its use means some Indigenous values for the land are left out of the economy – thereby limiting land sovereignty" (Arcand et al., 2020, p. 634). Institutional structures need to do more to aid rather than stifle the progress towards Indigenous-defined goals, beginning with reimagining what productivity can look like outside of capitalism (Arcand et al., 2020).

While academic studies can demonstrate social determinants of health improvements save healthcare spending, that the MG need continual subsidization adds a level of unpalatability to the project. Western Capitalism and neoliberal politicians struggle to fit this type of a socialized venture into their worldview of the maximal capital utilization, rather than treating capital as a tool to be shared or used to maximize value to the community over profits.

Building Autonomy into the Future of Food

In discussing why the Gardens exist and what potential they hold, many participants talked about the future of food they envisioned for Cumberland House. For many, it was decreased reliance on outside markets, and having a more sufficient local food economy that also supported the community economically and provided jobs. It included utilizing otherwise vacant and idle land and revisiting historical and traditional practices of growing and harvesting food on a community level. It included having a reliable, familiar, and empowering food system.

Like many of the gardening programs implemented in Northern, Indigenous settings, the evidence shows that gardening initiatives on the community level provide benefits, but the implementation of these programs are not sufficient to meet all their needs. This is due to several factors, including the lack of infrastructure, lack of predicable funding, human resources, a deficit

of gardening and logistical for large scale food production, and a lack of capacity for scaling. Borrowing the conclusion reached in Wapakeka, the CG and MG may not be "a solution in itself, but it does offer a potential strategy for developing initiatives that combat food insecurity, and in the process, foster an interest in nutritious food, local food production, and the possibility of building grassroots solutions to address health challenges" (2020, p. 418)

In examining the benefits the Community and Market Garden have provided to Cumberland House, it is evident that these initiatives have fostered local food production and have also become an active site of "purpose, people, and active use" (Garvin et al., 2012, p. 422). An empty site behind Colin's house became a space where people could plant, learn from each other, connect socially, supplement their meals with potatoes they grew, or share harvests with others in the community. In using the CG, participants strengthened their networks with others in the community and with the land (consistent with findings from Cochran & Minaker, 2020).

At the MG, participating in a communal gardening project was effective at developing a level of community empowerment and showing it is possible that people can become active in their own food systems (complementary to findings by Booth et al., 2018), even if it is not through the MG itself. For example, the CAPC group gathered to share food and learn to cook utilizing foods from the Market Garden, which increased their food literacy, skills, and their confidence in being able to feed their families healthy foods. While this food literacy increases utilization and capacity, it also comes with additional benefits as it is a social determinant of heath.

After seeing how the MG works and ways it could be changed or improved, local discussion about a Co-Op store have begun. While these planning stages are still early, in seeing how valuable it is to the community to know where their food comes from and how it is priced, this Market Garden initiative has paved the way for Cumberland House to explore ways they can more actively fight the challenges they face in combatting food insecurity. This spur of innovation is a benefit which may not seem directly linked to the Gardens, but is clearly resulting from a mindset created by a community able to take control of its food.

As well, the MG has spurred many conversations around the market food system, particularly the political and environmental implications of small- and large-scale agriculture. This "growth" of collective activism at garden sites alongside food has also been recognized by Levkoe (2006). There is a certain urgency that came up in the interviews around establishing a more

resilient food system. A more resilient food system is one that builds food sovereignty through it, summarized by Colin's point where he describes the way Cumberland House is "on the very tail end of a long and fragile and complex system". The residents of Cumberland House have borne witnesses to this fragility when, for example, a rainstorm washes out the only road that brings groceries into Cumberland House or allows people to leave to shop elsewhere. This situation isn't going to improve on its own; and some expect this system to get more fragile as the impacts of climate change worsen, affecting the physical infrastructure around Cumberland House and the production of the global agricultural system.

When speaking on Indigenous food sovereignty, the discussion of climate change tends to be around traditional food procurement methods, and research participants are asked how their current traditional practices compare to generations before given changes to the environment. The discussion of declining populations of wildlife; contamination by polycyclic aromatic hydrocarbons (PAHs), mercury and pesticides; climate change (example increased prevalence of forest fires); and commodification and conservation efforts threaten the access to and preservation of traditional food sources is rife in Indigenous food sovereignty literature (Jonasson et al., 2019; Muller, 2018; Timler & Sandy, 2020). In Cumberland House, too, these environmental factors are stressing the land and non-human kin that Indigenous populations rely on for traditional food practices. This in turn pushes them towards the lower-nutrient, high-calorie, culturally divergent foods offered by the industrial food complex. The Indigenous food sovereignty discussion speaks so strongly about land sovereignty because it is focused on re-establishing hunting, gathering, and growing food, in line with a holistic worldview that witnesses people as stewards working in cooperation with the Earth.

However, this maybe an unrealistic goal, encouraged in part by researchers who are too focused on restoring a pre-contact lifestyle as the best and ideal outcome. In recognizing that many Indigenous communities are dependent on market food sources, we must also recognize that for many people their lives have built around buying rather than hunting, trapping, or growing food. Yes, food from the community's only grocery store is expensive; and yes, the quality lacks in many ways; but the convenience of being able to purchase food has become engrained into people's way of life. They have every right to enjoy a Big Mac and the ability to buy food at a grocery story as much as anyone else does. A concept of Indigenous food sovereignty that does

not include market foods is basically suggesting that Indigenous folks should not enjoy the benefits and conveniences of a globalized food market. This strong focus on re-establishing traditional practices should not "obscure the fact that market-based food systems remain prohibitive in terms of costs and negligent regarding food selection and quality" (Burnett, Skinner, Hay, LeBlanc, & Chambers, 2017, p. 332). Furthermore, acknowledging that market food sources making up a large proportion of diets for Indigenous peoples can be rooted in a discussion of how these communities are and will be affected by the Industrial Food System, which is running at an unsustainable rate.

Of course, these sentiments in and of themselves are not new. From top academic journals to David Attenborough documentaries on Netflix, the looming threat of food, water, and land shortages that will leave evermore people on this growing planet hungry is well recognized. That said, I cannot help but feel that when we discuss Indigenous Food Sovereignty, we think of it in a separate sphere from the greater industrial food system; which could not be further from the truth. The climate change impacting the land and animal resources traditional food practices rely on is the very same climate change that is affecting (and being produced by) the industrial food system that produces the food that shows up on the Northern Store shelves.

In addition to this, Wayne's description of the need to utilize the resources at hand as a means of protecting the community from another wave of land grabbing and appropriation reveals the way settler colonialism remains a constant threat against Indigenous lives, even contemporarily. Wayne and a few other participants recognize that the community holds some very coveted resources that will be even more valuable in the decades to come: namely, arable land and fresh water. By growing food now and reconnecting with their gardening and land-based food procurement methods, they are also pre-emptively creating a system that will give them power and agency in the food systems of the future.

As stated at the beginning of the first findings chapter, "All we have is land"; and residents of Cumberland House are worried that, very soon, land will be an extremely valuable resource. As Wayne describes, by establishing a resilient food system now they are mitigating the risk of an outside power from coming in and taking the land to suit the needs of Southern networks. Cumberland House's centuries old experience with outsiders exploiting its land and people feel new again, or at least the stuff of near-future thinking and anxiety.

With this, contradictory notions of needing to promote and protect traditional practices arise, very similar to the findings presented by Muller (2018). As Muller describes, "competing and contradictory pressures frame the resurgence of traditional food practices between building wider inclusion and awareness while simultaneously protecting knowledge and resources from exploitation" (p. 2). I witnessed this very contradiction of excitement and wariness when talking to Wayne: his pride towards his community and the success they had grown was overshadowed by a tinge of suspicion about my motives and the motives of those who would eventually use (or exploit) this very research.

This possibility of establishing a more secure and self-sufficient food system through the expansion of the Market Garden and increased participation in the Community Garden – at least at the time of data collection – requires much more investment and resources, given the evidence showing that the Market and Community Garden only just supplement the diets of Cumberland House residents (and they do so only seasonally). If the Market and Community Garden are to become a reliable source of food, much more work needs be done by local players as well as policy makers. Whether it is in the capacity of these Gardens to reach that level remains unseen. While the land, soil, local interest, and need exist, there is much work to be done in order to maximize the Gardens' utility and impact on Cumberland House's food system. The discussions had with the residents of Cumberland House around these gardens indeed point to a need for a more resilient food system that supports their lifestyles, particularly a market food system that matches their economic realities.

Conclusion

In conclusion, to answer my research question: yes, these gardens have impacted Cumberland House and its community members' lives to varying degrees. I will elaborate on how they impact Cumberland house by answering my sub-questions:

1) What allowed for/inspired a collective gardening initiative to be implemented?
2) What are the perceived impacts on the community's foodscape, and individual- and community-level wellness as a result of the Market and Community Gardens?

3) What challenges are encountered by the Community and Market Gardens that may limit the extent to which they can facilitate creating a more self-determined food system in Cumberland House?

The gardens are a response to the prevalence of food insecurity and diet-related illness and intergenerational loss of cultural food practices. Their uptake was encouraged by a want for a healthier and more trusted food source in the community, access to land to grow on, and a desire to have more control over the food system. The Market and Community Gardens are inextricably tied to the community's desire to make create more equitable and healthy sources of food.

In creating these gardens, the people of Cumberland House have created areas where people can plant food, learn from each other, and share food together – and in the case of the MG, earn money doing so. These Gardens work to subvert the commodification of food in various ways and been a way for this community to revisit traditional methods of growing and sharing food. In a place where the introduction of market foods have significantly altered what people eat and how, these gardens are introducing a local source of produce to the foodscape and an opportunity for community members to be part of the growing process. Although the foods only supplement diets, the impacts are nonetheless positive. The participants attribute a better state of community-wellness as a result: namely, community-building and connectedness. As well, these Gardens are contributing to uptake in gardening activities, more accessible and affordable access to healthy foods, development of local food champions, and creation of jobs.

As well, these Gardens have brought attention to the dynamics of small- and large-scale agriculture and offers ways of reimagining the local food system. In exploring the potential of the gardens, other solutions were identified, like starting a Co-Op store as a means of increasing community control over what food is sold, the pricing, and who profits from food sales. It can be said without reservation that other than the increased need for capacity and logistics, there are no real observable downsides to the introduction of these Gardens, especially if the analysis is performed without incorporating the opportunity costs of the participating gardeners or employees.

Of course, the gardens are facing challenges that limit the extent to which they can facilitate a more self-determined food system in Cumberland House: namely, finances, seasonality, and infrastructure. More support is required in terms of training, record keeping, human resources, and finances in order to fully realize and explore the capacities and potential Cumberland House holds in localizing its food system. It goes beyond the scope of this thesis to discuss what could be done

to make the Gardens more efficient, or what initiatives could take its place to meet the community's overall goals. But what is clear is that there is a strong desire in Cumberland House to fundamentally change how fruits, vegetables and other foods are brought into the community, what they are sold for, and how they are grown; and they are doing hard work to explore just what that might look like. These lessons will undoubtedly carry over into other experiences of communities with attempts at Market or Community Gardens in their rural and Indigenous communities.

CHAPTER SEVEN

Concluding Thoughts

I write this conclusion at the start of 2021, more than three years after my visit to Cumberland House. In that time, I have been contemplating the impact these Gardens have through a pandemic; Black Lives Matter protests; protests of pipelines on Wet'suwet'en territory; violent reactions by settler fishermen against Mi'kmaq fishermen; the Trudeau government failing to meet their promise to end boil water advisories in First Nations communities across Canada by March 2021; and numerous other large, historic events. I have shared my findings at conferences like Congress with the Canadian Association for Food Studies (CAFS), at the Lakehead's 3-Minute Thesis Competition, the FLEDGE (Food: Locally Embedded, Globally Engaged) conference in Waterloo, and informal meetings with colleagues or discussions with friends and family. I have also worked with friends on a garden and gained a greater appreciation for the hard work growing your own food requires, and I have a stronger admiration for the patience needed to plant, tend to, and weed a garden that will produce food months later.

In these years, inequities in employment, housing and rent protection, food access, healthcare, legal protections of self and property, and access to water for people of colour has been impossible to ignore. The tumultuous and unprecedented events that have been occurring and the resulting coverage by news and social media has brought light to many of the ways the dominant Western, capitalist, colonial society is failing to protect and provide for racialized and marginalized peoples. In watching these events unfold, Wayne's mantra has stuck with me, too: "Food is life, without it you're dead". While food security is but one social determinant of health, establishing a resilient food system where people can rely on having safe, affordable, and tasty food to enjoy with their families in an ever-changing world is such an essential part of living a good life.

Building a food system from the ground up by talking with community members about their experiences, their preferences, and the way their food security interacts with other social determinants of health is of the utmost importance. I realize that given the complexity of these issues, my research only scratched the surface of the lived experiences of people in Cumberland House (and yes, I am aware 140 pages is extensive; but I swear there is even more to the story!). But, as discussed in the interviews, the experience of food insecurity in Cumberland House is real,

it is current, and given future projections establishing a resilient system is more important than ever.

During the time I was in Cumberland House collecting data and when I came back to Thunder Bay to analyze it, a question that literally kept me up at night was: had I done my research in a "good way"? As a student pursuing a Masters' degree, with no intention to return to Cumberland House for further research, I worried that this research mostly benefited myself. For me, this research is a learning experience and an opportunity to obtain a higher academic degree; and with it more prestigious social, economic, and political positions. I sincerely hope it will provide some benefit to the community – facilitated in part by the community-based nature in which I conducted it; the follow-up I provided via a report, which could be used to support the community's sustained efforts in building local food capacity; or that my work could encourage further research to be conducted on local food initiatives in Northern Saskatchewan – but I recognize the benefits I will enjoy are much more immediate than those enjoyed by the community.

These considerations still weigh heavily on me; and I recognize this is because they are critical questions that need to be considered by non-Indigenous graduate students (and researchers in general) who are doing research with Indigenous peoples and/or communities. As Cyr and Slater state, "Importantly, contributions of Indigenous research and epistemological worldviews that are not written in the spirit of collaboration with Indigenous peoples for Indigenous peoples arguably lack meaningful purpose" (Cyr & Slater, 2019, p. 53). The question of if my research was "meaningful" in this regard is a heavy question; and in trying to answer it, my perspective of how I live and move in the world more generally has also brought into consideration.

I think these questions and considerations are extremely important as Indigenous research continues to be conducted in mostly white universities. The intention to do good work while also trying pursue a degree and/or meet the requirements of the academy creates challenges. These thoughts and feelings are also very relevant in the wake of Black Lives Matter Protests that have been occurring since June 2020.; namely, my discomfort in facing the ways I benefit from participating in a racist society that marginalizes and causes disproportionate suffering for people of colour. Confronting these feelings is an ongoing process, and this discomfort is important to acknowledge and actively respond to.

This research has encouraged me to reflect on ways I can elevate folks in the community I study, and ways position and privilege can be lent to those who may not otherwise be exposed to academia or other institutions of power. This research has made me much more mindful and curious about ways of doing research – and all my future endeavours – with meaning and with the intention to empower others.

It was an absolute privilege to lend a hand in the Gardens and see firsthand the way this community is building their local capacity to grow, sell, and enjoy food. It has been inspiring to see the ways fresh, affordable, and accessible food has been prioritized for people within their community, by people in the community through the MG; and the opportunities provided for people to take up gardening themselves through the Community Garden. I am honoured to have been able to write about Cumberland House's creative exploration of ways to move away from being a "captive market", and towards gaining control over what they eat, how it is grown, and who benefits from it.

APPENDIX 1

Consent Forms

Exploring community food-focused initiatives in a Northern community: A case study of Cumberland House, SK

Hello, Potential Participant!

I am happy to hear you are interested in doing an interview! Thank you for your interest, time, and help! This sheet will give you some basic information about the research. Please ask if anything is unclear or you want more information. My contact details are at the end of this document.

Who am I and what is this research for?

My name is Vikki Schembri. I am a Master's student at Lakehead University in Thunder Bay, ON. I was invited to Cumberland House village to learn about the market garden and community garden. I will be here from September 21st to October 11th to do interviews and work in the gardens. The findings of research will be summarized in my Master's thesis.

What is this research about?

This research is about food in Cumberland House from the view of the community. I am interested YOUR voice! I want to hear from gardeners, non-gardeners, and people who manage the gardens. I want to know how these gardens started, and how they have effected your life or community. This is part of a research partnership project called Food: Locally Embedded, Globally Engaged (FLEdGE) and it will explore if these gardens are helping to build a secure and self-determined food system in the North. Food in the North is expensive at the store; it can be difficult for some people to hunt and harvest traditional foods; and the cold climate can make it difficult to grow your own food. Cumberland House has taken action by starting these gardens, and I want to know what has resulted.

What is being requested of me?

You are invited to be interviewed because you have the best idea about how the gardens work. I would like you to share if/how these gardens have changed your life and your community. This interview will take 30 minutes to an hour, depending on how much you are willing to share. You are welcome to do an interview with a friend or a family member – especially if you want someone to translate for you. If you decide to do group interview (with another gardener/non-gardener/coordinator), I ask that participants keep the information discussed in group interviews confidential. But, I cannot guarantee confidentiality. I will ask for personal information for context, but your identity will be protected if you want to remain anonymous. It will be audio-recorded. With your permission, I may take pictures or video-recordings. This is all voluntary. You may refuse to answer any questions or withdraw at any time.

Are there any benefits or risks I should be aware of?

I hope this research will be useful for your community. This research can provide information to make these gardens better and/or support them. I also hope it will be useful for other communities that are facing food situations like yours. To learn about food in Northern Canada, more community voices need to be heard. And we need to know more about food in Northern Saskatchewan. Your community is taking action, and I think it will helpful for other Northern communities to know why, how, and what the effects are. Maybe they will want to take action too, or ideas can be shared across communities!

There are very few risks that could come from doing this interview. Some questions might be personal or sensitive. You may not want others to know about your answers. If you want to be anonymous, your name will not be included in any data. OR, you can allow for your name to be used and your answers attributed to you. If you decide later to be anonymous, I will remove your name. You have control over how much you share with me.

How should I expect to be treated?

I will treat you and your answers with respect. Your participation is entirely voluntary. You can refuse to participate any time. You can refuse to answer any questions. These actions will not have negative consequences for you or your community.

I will be open and honest with you if you have any questions or concerns. I will write my results in Thunder Bay and I will have control over what is written in that final thesis. But you are free to withdraw any information you have shared with me at any time (use my contact information below). If you want to withdraw after a publication is made, then the information that was not yet used will be destroyed. You are welcome to read my final thesis. I will write a shorter report of my findings - let me know if you would like a copy. A copy will be sent to your community.

This study has been approved by the Lakehead University Research Ethics Board. If you have any questions about the ethics of the research, you can speak to someone that is not involved in the research. You can contact Sue Wright at the Research Ethics Board at 807-343-8283 or research@lakeheadu.ca.

What will be done with your information?

Nothing you say will be tied back to you individually in the write-ups, unless you allow your answers being attributed to you or your name being used. Some of your characteristics (ex. age, gardening experience) might be described generally. If at any point in time you want to be anonymous, I will remove your name from all the data.

What will happen to the data after it is collected?

I will have access to the interview transcripts and other materials (including audio recordings, hand-written notes and your consent form). My supervisors, Dr. Charles Levkoe and Dr. Rebecca Schiff, may also have access to this material. All raw data, audio recordings and typing up of interviews will be stored on password protected computers for up to ten years. Hardcopies will be stored in a locked filing cabinet in Dr. Schiff's office. At least five years after the research is done, the information will be destroyed. The final results might be written in reports, articles, or at conferences and meetings.

If you have further questions about how this project is being done, or if you feel uncomfortable with anything that was said in this letter, please let me know as soon as possible.

Thank you again for your time! I am very excited to talk to you and learn from you,

Victoria Schembri

Victoria Schembri
Masters Candidate
Department of Health Sciences
Lakehead University
t. 647-381-3247
e. vschembr@lakeheadu.ca

Charles Z. Levkoe
Department of Health Sciences
Lakehead University
t. 807-346-7954
e. clevkoe@lakeheadu.ca

Rebecca Schiff.
Department of Health Sciences
Lakehead University
t. 807-766-7199
e. rschiff@lakeheadu.ca

Lakehead UNIVERSITY

Name of Participant ____________________________
(please print)

- I have discussed the details of this research project and agree to participate in the research.
- I understand that the purpose of the research is to examine the impacts of the community and market garden in Cumberland House Village.
- I understand that my participation in this study will bring minimal risks or harm.
- I understand that my participation in this study is voluntary and that I may withdraw at any time for any reason without penalty.
- I understand that there is no obligation to answer any questions that I do not want to answer.
- I understand that I can provide as much, or as little information as I wish.
- I understand that I can ask to be anonymous, and no data (beyond this consent form) will include my name.
- I understand that if I decide to do a group interview, my confidentiality is not guaranteed.
- I understand that in written reports or presentations of the data, none of the information will be tied to me individually (unless I give permission for my name and identity to be used).
- I understand I may ask questions of the researcher at any point during the research process.
- I understand that the results of this study may be distributed in academic journals, conference presentations and in other publications, and that a final report is available to participants.
- I agree to have this interview recorded (please circle one): Yes No
- I agree to be photographed and or video recorded (please circle one): Yes No
- I wish to remain anonymous (please circle one): Yes No
- I agree to let my name be used in this research, and my answers can be attributed to me (please circle one) Yes No
- I agree to participate in this study Yes No
- Would you like to receive a copy of the research results (please circle one): Yes No

I am fully aware of the nature and extent of my participation in this project as stated above.

____________________________ ____________________________
Participant's Signature Date

If you have any questions or concerns about this study, please contact Victoria Schembri (647-381-3247, or vschemb@lakeheadu.ca). If you have questions about your rights as a research participant in general, please contact Sue Wright at the Research Ethics Board at 807-343-8283 or research@lakeheadu.ca.

APPENDIX 2

Interview Guide

INTERVIEW GUIDE

- ☐ Read consent letter
- ☐ Signed consent form or get verbal consent
- ☐ Ask: any questions?

1. Tell me a bit about yourself! (Icebreakers)
   a. How long have you lived in Cumberland House?
   b. What do you do in the community?
   c. What's your favourite food?

2. Describe the food situation in Cumberland House.
   a. Any challenges with accessing food (personally & in general)?
      i. Price
      ii. Selection
      iii. Quality
      iv. Quantity
      v. Seasonality
      vi. Experience hunger
      vii. Experience food-related chronic diseases
   b. Any concern about how food is grown/bought/sold (in general, in your community)
      i. Where the growing/buying/selling is done;
      ii. Who does the growing/buying/selling?
      iii. Pesticides? Fertilizers?
   c. What does food mean to you? How do you think of food?
      i. Something you eat? Something you consume out of necessity?
      ii. Something that nourishes you? Body? Mind?
      iii. Something you enjoy?
      iv. Is it tied to a cultural or spiritual experience? Ritual? Family?
      v. Does different food (store bought, fished, hunted, foraged) mean different things to you? Hold different values?
   d. Is food an important part of life or culture here?
      i. Specific types of food that are important (to you, to the community, to your culture, to this area)?
      ii. Are there food-centered events that occur in the community?
   e. Where do you get your food from?
      i. Store (in town, Nipawin, Prince Albert, etc.)
      ii. Hunting
      iii. Harvesting

            iv. Grown in/outside of community
      f. Any other food initiatives going on in the village? Any food champions?

3. What is your relationship with the market and community gardens in Cumberland House Village?
   a. What was/is your role in the garden?
      i. How would you describe your level of involvement/influence in/over the garden?
      ii. Present, or past?
      iii. Ex. founder, organizer, manager, planner, financial planner, orders seeds, hiring/recruiting, community outreach, farmers market coordinator, gardener, purchaser, consumer, none?

(*Non-gardener may have a relationship by eating/buying/sharing food from gardens. If non-gardener, and has <u>no involvement at all</u> then ask: Why?
Lack of interest in gardening?
Time commitment?
Food is too expensive to buy?
No personal connections to other gardeners/coordinators?
Think the gardens are not useful? Then skip to Question 5)

   b. How long have you been involved in the market garden (MG)/community garden (CG)?
      i. Currently? In the past?
      ii. Any related experience from previous jobs, volunteering, hobbies, etc?
   c. How did you get involved?
      i. And, if no longer involved, why?
   d. Who else do you work with (individuals or organizations)?
      i. Who else is an essential player in the MG/CG?
      ii. Garden champions?

4. What drew you to the MG/CG? **(*N/A for non-gardener with no involvement)**
   a. Did it align with other interests?
   b. What did you expect to get out of this experience/involvement?
   c. What did you hope this MG/CG would bring to your community?
   d. Do you notice any patterns in who is involved in the gardens (specific demographic – age, income level, proximity to garden, personal connections?)

5. How did this CG/MG come about? **(*some prompts might be N/A for gardeners and non-gardeners, but they are welcome to provide their perspective, especially re. c & d)**
   a. Why/how did this MG/CG happen?
      i. Planned? Intentional? By circumstance? A specific event?
   b. Was there a specific goal in mind?

        i. If so, what was it?
        ii. Whose goal was it?
    c. What is it about Cumberland House that made it possible for it to happen?
        i. Land available? Connections with town council, gardeners, people with proper supplies? Community interest? Good weather, soil?
    d. Do you think it's an appropriate intervention for this community?

6. Who or what is "in charge" of the GM/CM?
    a. Influential people and/or organizations – town council/municipal government, community members, most involved gardeners, internal/external funders?
    b. Environmental - weather, seasons, climate, bugs, flooding?
    c. Anything else? External factors?

7. How does this year's MG/CG compare to previous years?
    a. More or less involvement (hired work, voluntary work, amount of time you spend working on it)?
    b. Shorter season? Wetter/drier season? Later/earlier start?
    c. Any "hiccups"? (ex. lack of funding, personal matters that kept you from gardening, gardening equipment broke, etc.)
    d. More or less production?
        i. Seeds planted?
        ii. Food being sold? Bought?
        iii. Food being wasted; picked too early?
        iv. Seed becoming seedlings and producing food?
        v. Variety of crops?
    e. More or less community support?
    f. More or less resources/tools/money available for use in gardens?
    g. Your feelings towards the gardens (excited, disappointment, hope)?

8. What are the benefits you've experienced because of the garden(s)? Have you learned and/or gained anything from your involvement? **(Note: non-gardeners may not be directly involved in the gardens, but they may be involved in consuming/sharing/purchasing food from the gardens. They may be able to answer this in some way)**
    a. Learned about food, gardening (in general), gardening in a Northern climate?
    b. Learned about your community?
    c. Changed your reputation in the community? Or level of investment/influence in the community?
    d. Gained a new food source? Or more control over your food system?
    e. Eating better? healthier? More fruits and vegetables?
    f. Met any new people? Made any connections within/outside the community? Talked to anyone you typically wouldn't talk to?
    g. Learned new business skills? Social skills? Gardening skills?

   h. How do you feel about being involved? Or about the presence of the gardens in the community?
      i. Ex. Happy? Proud? Empowered? Indifferent?

9. How would you describe your own personal health? And has your involvement in the garden had any impact on if you think of yourself as healthy, or well?

10. Have you experienced any negative consequences from your involvement in the MG/CG, or from the presence of the MG/CG in your community? Are these a fault of the gardens, or other factors?
    a. Stress? Frustration?
    b. Fracturing within the community?
    c. Expectations are not being met? Disappointment?
    d. Good use of time/money, or no?

11. Is there anything that can be changed about the MG/CG to increase the benefits? Lessen the negative consequences? To make it more useful or sustainable?
    a. OR, can you identify the causes of the negative consequences?
    b. Does someone else need to get involved? Have their say?

12. Do you notice any difference between food bought from the store/Nipawin/elsewhere, and the food grown in the CG/MG?
    a. Taste;
    b. Quality;
    c. Price;
    d. Feelings/emotions associated with food?

13. Have you noticed a change in your community or among (fellow) (non)-gardeners since this MG/CG started (or since you got involved in it)?
    a. Similar to prompts from Question #7
    b. For example, if the road floods, do you feel more confident about the food that is available in your community?
    c. For example, is it providing a “solution” to high food prices at the store? Is it a good alternative?
    d. Refer to the answers given in Question #2
    e. Who experiences these changes?
       i. Ex. Everyone? Just gardeners? Consumers/buyers? Employees of MG? Families/friends of CGers?

14. Relating to the changes/benefits/consequences that come from the garden – are they seasonal? Year-round? For yourself? For the community?

15. Does the MG/CG have potential to grow? To expand?

   a. Should it?
   b. Examples of where (else) it is working?
   c. Ideas for collaborations with other communities/community groups?

16. What is your (ideal) vision for the MG/CG? What needs to be done to achieve this vision? What challenges might be faced trying to achieve this vision?

17. Is there anything else you would like to say about these gardens, or food in Cumberland House (of the North, or Northern Saskatchewan)?

18. Do you have any questions for me about the research?

APPENDIX 3

Observation Protocol

Date: (include day of the week)

Start Time:

End Time:

Descriptive notes:

Physical environment:

- Warm or cold? Dry or raining? Bugs out?

Appearance of garden:

- What's growing?
- Any difference from last visit? (Anything out of place, missing, broken, fixed, etc.?)

Number of people in garden:

Appearance of people in garden; human traffic:

- Men, women, children, ethno-cultural background
- Approx. ages
- Approx. time spent in garden
- Seen before, new faces
- Anyone walking by; looking in?

Verbal behaviour, interactions

- Who speaks to whom?
- How long?
- Tone of voice?
- Languages spoken?
- Willing to converse with me?

Physical behaviour, activities:

- What are people doing?
- Who is doing what?
- Gardening (specific task?)
- Socializing
- Learning
- Harvesting
- Eating
- Together, alone?

Reflective observations:

Summary of conversation(s) with people in garden:

Questions to ask people in garden

- What are you growing?
- What were you doing before this? After this?
- When do you usually come to the garden?
- What do you enjoy about coming here?
- Do you have a garden at home? Experience gardening?

Mood:

- Quiet, relaxed?
- Busy, rushed?
- Relaxed, social?

APPENDIX 4

Comparing Food Prices at Northern Store, Cumberland House with IGA, Nipawin

Northern, Cumberland House		Co-op, Nipawin	
Item	**Price ($)**	**Item (same as before unless specified)**	**Price ($)**
Clamshell Grapes	10.69		5.99
Cauliflower head	6.49		2.99
Brocolli Head	7.75		3.49
Green Onions (bundle)	3.45		1.29
Lemons (each)	1.59		0.99
Onions (1.36 kg)	5.35	regular / organic	2.99 / 4.99
Corn (4 ears)	9.99		6.99
Iceberg Lettuce (head)	$2.25		2.28
Red Peppers (per kg)	14.59		9.90
Coleslaw Mix (397g)	5.35		1.69
Cucumbers (each)	4.79		1.78
Huggies (84 diapers)	34.79	(136 diapers)	32.99
		Pampers (128 diapers)	32.99
Tide (32 loads)	14.49	Tide (36 loads)	12.98
		Gold (33 loads)	7.29
Black Diamond cheddar, old (200 g)	6.75	(802-907 g)	8.99
		Old Cheddar, Co-op brand (500 g)	6.99
Yogurt, Astro, plain (750 g)	4.45		2.98
Eggs, Prestige, Large (18 eggs)	7.35	₵entibles, Co-op brand	4.28
Turkey, Granny's, frozen (per kg)	4.39		3.42
Lean Ground Beef (per kg)	17.39	(in bulk, family pack)	6.59
Pork back ribs (per kg)	19.99		10.79 - 12.79
Chicken, Granny's, drumsticks	15.19	(different brand)	7.23
Crackers, Premium, unsalted (450 g)	6.75		4.49
Peanut butter, Kraft, Crunchy (1 kg)	11.59		7.49
Crinkle cut fries, Best Value (2 kg)	7.29	Gold brand, 1 kg	3.49
Schneider's chickens trips (750 g)	18.49	Maple Leaf Prime	12.49
Oreo cookies (303 g)	6.09		3.78
Heinz Red Kidney Beans (398 mL)	2.45	Gold, 540 mL	1.19

Canned Tuna, Ocean's, in water (170 g)	2.69		3.78
Canned salmon, Goldseal, sockeye (213 g)	5.25		4.39
Quick Oats, Best Value (1 kg)	4.79	Gold	0.99
Extra Virgin Olive Oil, Bertolli (250 mL)	7.15	(500 mL)	7.89
		EVOO, Gold (1 L)	5.78
Canola Oil, Crisco (1.42 L)	9.19		8.99

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